***BY ORDER OF THE OF THE COMMANDER DYESS AIR FORCE BASE***

***DYESS AIR FORCE BASE INSTRUCTION 15-101***

***30 JUNE 2014***

*Incorporating Through Change 2,*

*28 APRIL 2016*

***Weather***

# *WEATHER SUPPORT PROCEDURES*

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 15-1, *Air Force Weather Operations*, Air Force Instruction (AFI) 10-229, *Responding to Severe Weather Events*, AFI 10-206, *Operational Reporting,* AFI 10-206 ACC SUP, *Operational Reporting,* AFI 15-114, *Functional Resource and Weather Technical Performance Evaluation*; AFI 15-128,*Air Force Weather Roles and Responsibilities,* AFI 15-128 ACC SUP, *Air Force Weather Roles and Responsibilities,* Air Force Manual (AFMAN) 15-111, *Surface Weather Observations*; AFMAN 15-124, *Meteorological Codes*; AFMAN 15-129V1, *Air and Space Weather Operations - Characterization;* AFMAN 15-129V2, *Air and Space Weather Operations – Exploitation,* AFMAN 15-129V2 ACC SUP, *Air and Space Weather Operations – Exploitation,* Air Mobility Command Instruction (AMCI) 15-101, *Weather Operations and Support*; AFI13-204V3, *Airfield Operations Procedures and Programs,* AFI13-204V3 ACCSUP, *Airfield Operations Procedures and Programs,* AFI 11-2B-1V3, *B-1 Operations Procedures,* AFI 11-2B-1V3 DYS ADDENDUM, *B-1 Operations Procedures,* AFI 11-2C-130JV3, *C-130J Operations Procedures,* AFI 11-202V3, *General Flight Rules,* AFI 11-202V3 ACC SUP, *General Flight Rules,* DAFI 11-250, *Airfield Operations and Base Flying Procedures*. It establishes responsibilities and weather support procedures for Dyess AFB. It provides general information for weather services, including weather observations and forecasts; weather Warnings, Watches and Advisories; space weather supported services and dissemination of information and reciprocal support. It applies to units assigned to the 7th Bomb Wing (7 BW), 317th Airlift Group (317 AG), subordinate units and units assigned to, attached to, or supported by Dyess Air Force Base.

Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Contact supporting records managers as required. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command.

***SUMMARY OF CHANGES***

This interim change supersedes DYESSAFBI15-101 IC-1 by affecting the following lines: 1.2., 2.2.5.4., 6.3.1., 6.3.1.1., 6.3.1.2., 6.3.2.2., 6.3.2.5., 6.3.3., 8.13.1., 8.13.2., 8.13.2.1., and 8.19. The following lines are deleted: 8.13.1.1, 8.13.1.2., 8.13.1.3., 8.13.1.4., 8.13.1.5., 8.13.1.6., 8.13.1.7., 8.13.1.8., 8.13.1.9., 8.19.1., and 8.19.2. The following lines, Tables, and figure were added: 3.6.2.16.1., 3.6.2.16.2., 8.13.2.2., 8.13.2.3., 8.13.2.4., 8.13.2.5., 8.13.2.6., 8.13.2.7., 8.13.3., 8.13.3.1., 8.13.3.2., 8.13.3.3., 8.13.4., 8.13.4.1., 8.23., 8.23.1., Table 3.4., Table 5.1., Table 5.2., Table 5.5., Table 6.1., Table 6.2., and Figure 6.1.

## Chapter 1

## GENERAL INFORMATION

**1.1. General.** This instruction, along with the Dyess Installation Data Sheet (IDS) between the 7th Operations Support Squadron Weather Flight (7 OSS/OSW) and the 26th Operational Weather Squadron (26 OWS) establishes roles and responsibilities for providing collaborative weather support to the 7th Bomb Wing (7 BW), 317th Airlift Group (317 AG), and all other tenant organizations and agencies at Dyess Air Force Base. It consolidates weather support requirements and procedures for peacetime operations and eliminates the need for written agreements between the weather unit and supported operations.

**1.2. 7 OSS/OSW Normal Hours of Duty and Key Contact Information.** Mission weather forecasting and airfield services are provided IAW this instruction 24 hours a day, 365 days a year, with the exception of federal holidays and when the Dyess tower and aerodrome are closed. Unless SWAP criteria are met or there is an equipment outage outside normal duty hours, there will be no forecaster on duty to perform Airfield Services for AMC-gained missions and Mission Weather Services will be arranged to be provided by the TACC or regional OWS. A standby forecaster will always be available to be recalled to perform Airfield Services functions in case of an equipment outage or inclement weather occurs where augmentation of the observing equipment is required. There is usually only one official forecaster on duty who performs both mission weather and airfield services duties. Dyess weather personnel can be reached at the following numbers: Mission Weather/Airfield Services Forecaster, DSN 461-2524/4857; NCOIC, DSN 461-2501; Flight Commander, DSN 461-4364; Wing Weather Officer, DSN 461-3211. The Dyess Consolidated Command post at DSN 461-1921 can recall a weather forecaster during non-duty hours. The commercial number at Dyess is (325) 696-xxxx. To call commercial to Dyess, dial (325) 696-xxxx, where the xs are the last four digits of the DSN number. Normal duty hours for staff weather support services are 0730L to 1630L Monday through Friday, with the exception of federal holidays. The 7 OSS/OSW is located in Building 9001, 674 Alert Avenue.

**1.3. Duty Priorities.** The 7 OSS/OSW and 26 OWS establish duty priorities to ensure task accomplishment in order of relative importance. The forecaster may only deviate from the priority list in the best interest of flight safety and protection of life and property. All personnel use the concept of Operational Risk Management (ORM) when using the duty priorities.

**Table 1.1. Duty Priority List (7 OSS/OSW)**

| ***Order of Priority*** | ***DUTIES*** |
|---|---|
| 1 | Perform emergency war order (EWO) taskings. |
| 2 | Respond to KLAXON Alarm |
| 3 | Execute evacuation / AOL procedures |
| 4 | Respond to aircraft and ground emergencies. |
| 5 | Respond to pilot to metro service (PMSV) contacts. |
| 6 | Provide weather information for Supervisor of Flying (SOF) |
| 7 | Prepare and issue observed/forecasted weather Warnings/Advisories (WW/WA) locally. |
| 8 | Augment AN/FMQ-19 observations for mandatory elements |
| 9 | Provide "eyes-forward" / Collaborate with the OWS |
| 10 | Perform severe weather action process (SWAP) operations. |
| 11 | Produce and disseminate mission weather products (MWP). |
| 12 | Relay urgent pilot reports (PIREPs) to OWS. |
| 13 | Disseminate PIREPs. |
| 14 | Provide MWP briefing support. |
| 15 | Perform MISSIONWATCH. |
| 16 | Provide other briefing support (transient). |
| 17 | Weather function training. |
| 18 | Accomplish administrative tasks. |

## 1.4. Observing Limitations.

1.4.1. There are no known or documented limitations to the AN/FMQ-19 sensors on the airfield.

1.4.2. When backing up or supplementing the AN/FMQ-19 Automated Meteorological Observing System (AMOS), the alternate observation point is on the airfield side of Building 9001, on the red marked (DV) pavement. The view from this location is restricted from the E to the SE by buildings.

1.4.3. The forecaster may not detect weather changes as they occur due to other duties performed inside the building away from the outdoor elements. A cooperative weather watch with Dyess tower Air Traffic Control (ATC) personnel IAW Chapter 3 reduces the impact of this limitation.

## 1.5. Alternate Operating Location (AOL) Limitations.

1.5.1. Weather services from the alternate operating location are limited. During evacuations, personnel safety and ORM take priority over all other duties. Surface observations are not available during the initial execution of an evacuation. Since tactical equipment is used to compute pressure, both station pressure and altimeter setting are estimated from the alternate location. Mission weather services resume after the forecaster has relocated to the alternate facility and has transmitted the first observation.

1.5.2. Visibility is determined from the observation point along the flightline directly adjacent from the Dyess tower.. Due to limited backup resources, product and service delays may be experienced during peak production times.

**1.6. Backup Support to the 26 OWS.** The Dyess 7 OSS/OSW will assume flight weather briefing support, local Terminal Aerodrome Forecast (TAF) and weather watch, warning and advisory responsibility during significant OWS communication outages, Continuity of Operations Exercises (COOP), evacuations or catastrophic events.

**1.7. Release of Weather Information.** Refer any requests for weather information by non-Department of Defense (DoD) agencies to the 7 BW Public Affairs (7 BW/PA), who then determines if providing the information is in the best interest of the installation.

**1.8. Primary Product Dissemination.** JET is the primary dissemination system for TAFs, surface observations, Watches/Warnings and advisories. The MWP is posted on the Weather Webpage (**https://cs3.eis.af.mil/sites/AC-OP-02-90/default.aspx**).

**1.9. Pilot-to-Metro Service (PMSV).** PMSV is available by contacting "Dyess Metro" at frequency 383.25 Megahertz, or through a global phone patch to DSN 461-2524. The 7 OSS/OSW monitors PMSV and relays any observation/forecast or update weather briefings upon request. The operating range of the PMSV is restricted to line-of-sight resulting in a maximum operational range of approximately 200 NM. No backup PMSV capability currently exists, however Sheppard AFB will provide alternate PMSV service at 339.65. All weather stations within a 200 NM radius of Dyess operate on frequency 344.6. When the PMSV is inoperative the 7 OSS/OSW immediately notifies Base Operations, and in turn, a NOTAM is issued to reflect the outage.

**1.10. Backup Product Dissemination and Data Retrieval.**

1.10.1. The 7 OSS/OSW forwards local weather observations and PIREPS first to the Dyess tower using the hotline/phone, then to the 26 OWS. These calls are tracked on an AF Form 9, *Local Dissemination Log*.

1.10.2. The AFW-WEBS internet site is the primary method for long line dissemination of weather observations and PIREPS.

1.10.3. The 7 OSS/OSW disseminates weather watches/warnings and advisories via telephone to the Dyess tower, Dyess command post, airfield ops, the SOF and NAOC (if applicable).

1.10.4. The 7 OSS/OSW disseminates the MWP via fax or email to all flying squadrons and the Supervisor of Flying (SOF).

1.10.5. When the 26 OWS web site is inoperative, the 7 OSS/OSW uses alternative data sources in preparing the MWP and conducting METWATCH/MISSIONWATCH. Links to alternate sources are on the weather intranet webpage. When internet capability does not exist, the 7 OSS/OSW contacts the 26 OWS and has them fax data as needed IAW the Dyess IDS.

**1.11. Alternate Operating Location (AOL).** The AOL is located in the Dyess tower on 1017 Herk Drive (Building 4300). The forecaster will operate out of the 4$^{th}$ floor, DSN 461-5302, and any additional 7 OSS/OSW personnel will relocate to the 4$^{th}$ floor to support mission weather

services. **NOTE:** If Airfield Management Operations (AMOPS) is evacuating, the Duty forecaster will ride with them to the AOL.

1.11.1. The forecaster notifies the following agencies of evacuation to the AOL:

1.11.1.1. Dyess tower/SOF, 696-1400/4684 or in person after evacuation.

1.11.1.2. Dyess consolidated command post, 696-1921/1984.

1.11.1.3. Airfield Management, 696-2515 or in person before evacuation.

1.11.1.4. Bomber/airlift squadrons during wing flying days: 9BS at 696-7453; 28BS at 696-2828; 337 TES/77 WS at 696-8000; 39AS at 696-4045; 40AS at 696-4004, and NAOC (if applicable) at 696-2105/2106.

1.11.1.5. The 26 OWS to coordinate mission essential backup support – DSN 331-2618.

1.11.1.6. Flight CC/ NCOIC.

1.11.2. Alternate Operating Location (AOL): The forecaster takes supplemented/backup observations from the AOL. The observation point is on the flightline directly adjacent to the Dyess tower. Elevation is 1775 Feet above MSL.

1.11.3. The forecaster continues to perform normal duties according to the Duty Priorities List (Table 1.1) and Shift Checklists (i.e. MWP, MISSIONWATCH, METWATCH, Eyes Forward, etc.).

1.11.4. Primary and alternate dissemination methods are used. The 7 OSS/OSW personnel will transmit the observation within 15 minutes, if network capability is functioning via JET. If the JET system is not functioning, personnel will upload the observation into AFW-WEBS. If network capability is not functioning, personnel will call 26 OWS, or another weather station and logged in Column 13 of AF Form 3803, *Surface Weather Observations (METAR/SPECI)*. Other bases personnel can call KGRK at DSN 738-9620; KRCA at DSN 675-1042; KSPS at DSN 736-2730, or KDMA at DSN 228-3536. Local dissemination will be log on an AF Form 9.

1.11.5. The 7 OSS/OSW conducts AOL evacuation training on a quarterly basis in conjunction with their monthly continuation training.

## Chapter 2

## MISSION WEATHER ELEMENT

**2.1. General.**

2.1.1. The forecaster prepares, issues, and briefs the Dyess MWP and provides MISSIONWATCH for all flights.

2.1.2. The 7 OSS/OSW provides or arranges weather support for all transient aircrew IAW duty priorities.

2.1.3. Dyess Weather Availability. Dyess Weather (7 OSS/OSW) will have personnel on duty when their supported unit is performing their primary operation, duty, or mission and/or when Dyess tower is open and no automated observing system capability exists.

2.1.3.1. The 7 OSS/OSW is not required to be on duty when Dyess tower is closed, unless SWAP has been implemented and it is necessary to provide the eyes forward function, or to supplement for tornadic activity IAW AFMAN 15-111, Surface Weather Observations. The 26 OWS will provide flight weather briefing (FWB) support to flights conducted outside normal organization operations when Dyess tower is closed and 7 OSS/OSW personnel are unavailable.

2.1.3.2. The 7 OSS/OSW will enter a FWB request via the 26 OWS web page when the supported unit provides advance notification of intent to conduct operations, and the 7 OSS/OSW personnel are unable to provide MWPs.

2.1.3.3. The 7 OSS/OSW will coordinate requests for briefing support with the 26 OWS on larger flying operations when 7 OSS/OSW cannot provide MWPs to the supported unit(s) due to manning levels or temporary duty commitments.

2.1.4. Aero Club Activities. The 7 OSS/OSW and 26 OWS will provide flight weather briefings to Aero Club members performing official AF operational duties (i.e., Civil Air Patrol and Initial Flying Training Programs). The 7 OSS/OSW will provide or arrange briefings when such Aero Club flights are in a transient status through the 26 OWS or Flight Service Station. The 7 OSS/OSW will not remain open on weekends or times outside normal Dyess tower published operating hours to provide briefings for routine Aero Club flying activities. The 7 OSS/OSW will advise Aero Club members performing official flight duties of the 26 OWS web page request process and self-briefing capabilities.

**2.2. Mission Weather Products (MWPs).** The MWP is a mission-specific forecast developed using a continuous cycle that adapts as the supported units needs change as outlined in AFMAN 15-129V2. A MWP is provided through a number of methods (web-based, verbally, face-to-face, DD 175-1's, *Flight Weather Briefing*, etc.,). The forecaster fuses and tailors products from operational weather centers and local units to produce the MWP, and amends the MWP as needed when rapidly changing conditions exist or when conditions threaten resource protection. The 7 OSS/OSW coordinates with the 26 OWS when time permits in these situations.

2.2.1. The 7 OSS/OSW will coordinate with their supported agencies to determine the content and format to ensure it contains decision-grade information, which effectively impacts the end user's decision-making process.

2.2.2. The 7 OSS/OSW will coordinate/tailor the delivery method and timing of the MWP with their supported agencies to fit mission requirements.

2.2.3. The 7 OSS/OSW will tailor information delivery to critical decision points within the supported agencies' operational cycle (i.e., mission planning) where a weather forecast would provide the maximum benefit to the successful outcome of the mission.

2.2.4. The 7 OSS/OSW, at a minimum, will formally document weather forecast information/product descriptions (i.e., sample products, formats, delivery methods, decoding) and MWP products.

2.2.5. The forecaster presents the following forms of MWP products:

2.2.5.1. Over the counter/phone (Verbal) briefings. The forecaster is available during normal duty hours to brief aircrews on weather affecting the flight departure, en-route, destination(s) and alternates.

2.2.5.2. Mass briefings: The 7 OSS/OSW provides face-to-face mass briefings upon request. The morning planning weather briefing is the most common mass brief, normally incorporated into the 28 BS morning aircrew brief and available to the 9 BS at their request.

2.2.5.3. DD Form 175-1 weather briefings. The 7 OSS/OSW provides 175-1 briefings to aircrews upon request. These briefings are primarily for off-station missions. For a complete breakdown of the elements included in the 175-1, refer to AFMAN 15-129V2. **NOTE**: All briefings are conducted IAW AFMAN 15-129V2.

2.2.5.4. Dyess AFB Mission Weather Product: The forecaster prepares a MWP daily for all 7 BW flying squadrons and 317 AG flying squadrons performing local training missions or those that are not tasked by AMC where another unit is the LWU. This product is used for local missions, including round-robin missions without intervening stops. The 618 AOC (TACC)/XOW is the weather element for all AMC-gained missions that are under TACC command and control and designated AMC and AMC-gained, non IFM missions flown by the 317 AG flying squadrons. A MWP is built for each flying squadron and posted on the 7 OSS/OSW webpage under the corresponding unit on the right. The MWP is completed and posted to the website at 0400L and 1200L, valid for an 18 hour period, and amended as needed until 1 hour after the last mission on the MWP lands. Amendments are made as necessary based on the criteria listed below. New MWP numbers are assigned for the 0400L and 1200L MWPs issued and amended MWPs will append "AMD #" to the number of the last MWP issued. Amendment times will be posted on each MWP.

2.2.5.4.1. The MWP contains the following parameters (Refer to **Attachment 3** for an example MWP):

2.2.5.4.1.1. Valid Time/Date.

2.2.5.4.1.2. Take Off Ceiling, Visibility, Significant Weather, Wind, Crosswind, Minimum Altimeter Setting, Pressure Altitude, Temperature, Dew Point, Relative Humidity and Minimum Ceiling in 3-hour time blocks out to 18 hours.

2.2.5.4.1.3. Extended Outlook (additional 18-hour Outlook).

2.2.5.4.1.4. BMNT, Sunrise, Sunset, EENT, Moonrise, Moonset, Moon Illumination, Contrails, Height of -30C, Minimum Freezing Level, Temperature Deviation.

2.2.5.4.1.5. Maximum and Minimum Temperatures.

2.2.5.4.1.6. Climb Winds.

2.2.5.4.1.7. Current CONUS Satellite and Radar Image.

2.2.5.4.1.8. Current Watches/Warnings/Advisories.

2.2.5.4.1.9. Space Weather Impacts.

2.2.5.4.1.10. Local Area Weather Hazards.

2.2.5.4.1.11. MOA Forecasts, AR Forecasts, IR Forecasts, and Drop Zone Forecasts.

2.2.5.4.1.11.1. Common MOAs/ARs/IRs/DZs: Lancer, Snyder, Smokey Bison, Pecos, AR 623, IR-178, IR-109, IR-126, Bronte, Tye and Jackrabbit.

2.2.5.4.1.11.2. Altitude Variation (D Value)

2.2.5.4.1.11.3. Alternate/Divert Weather.

2.2.5.4.1.11.4. ATP (Advanced Targeting Pod) utilization feasibility outlook for scheduled MOAs and Ranges.

2.2.6. The MWP is amended for the following criteria until 1 hour after the last scheduled landing and disseminated via the webpage during normal operations:

2.2.6.1. Ceilings or Visibility out of category (refer to Table 2.1.). Categories are determined by the lower of the values. Lowest published airfield minimum for Ceiling/Visibility is category A.

2.2.6.2. Weather phenomena out of category (refer to Table 2.2.). Criterion applies to the terminal, AR, IR, DZ/LZ, or MOA, from the surface to 30,000ft MSL (CATII for C-130 or CAT IV for B-1 aircraft). The MWP will be amended anytime the forecaster believes conditions are operationally significant.

**TABLE 2.1. MWP Ceiling/Visibility Categories**

| Standard Specification and Amendment Criteria | | |
|---|---|---|
| **CIGS** | **VIS** | **Category** |
| Ceiling or Visibility observed or expected to decrease to less than, or if below, increase to equal or exceed: | | |
| > 3000 FT | > 3SM (4800M) | **H** |
| ≤ 3000 FT but > 2200 FT | | **G** |
| ≤ 2200 FT but > 2000 FT | | **F** |
| ≤ 2000 FT but > 1700 FT | | **E** |
| ≤ 1700 FT but > 1500 FT | | **D** |
| ≤ 1500 FT but ≥ 800 FT | ≤ 3SM (4800M) but ≥ 2SM (3200M) | **C** |
| < 800 FT but ≥ 200 FT | < 2SM (3200M) but ≥ 1/2SM (0800M) | **B** |
| < 200 FT | < 1/2SM (0800M) | **A** |

**TABLE 2.2. MWP Weather Phenomena Criteria**

| Standard Specification and Amendment Criteria | |
|---|---|
| **Phenomena** | **Criteria** |
| **Surface Winds** | **a.Wind Speed**: The difference between the predominant wind speed and the forecast wind speed is ≥ 10 knots<br>**b.Wind Gusts:** The difference between observed gusts and the forecast is ≥ 10 knots<br>**c.Wind Direction**: A change > 30 degrees when the predominant wind speed or gusts are expected to be 15 knots or greater. |
| **Icing, not associated with thunderstorms, from the surface to 10,000ft Above Ground Level (AGL)** | The beginning or ending of icing first meets, exceeds, or decreases to **any** threshold and was not specified in the forecast |
| **Turbulence (for weather category II aircraft), not associated with thunderstorms from the surface to 10,000 ft AGL** | The beginning or ending of turbulence first meets, exceeds, or decreases below moderate or greater thresholds and was not specified in the forecast |
| **Weather WWA Criteria** | Occur, or are expected to occur during the forecast period, but were not specified in the forecast<br><br>Specified in the forecast but are no longer expected to occur during the forecast period |
| **Altimeter Setting** | Altimeter setting **meets or exceeds 31.00 INS** and was not specified in the forecast<br><br>Altimeter setting, if above, **drops below 31.00 INS** and was not specified during the forecast period<br>Altimeter setting **drops below 28.00 INS** and was not specified in the forecast<br><br>Altimeter setting, if below 28.00 INS, **increases above 28.00 INS** and was not specified in the forecast |
| **Thunderstorms** | Incorrect forecast start or end time |
| **Specification of Temporary Conditions (TEMPO group)** | Forecast conditions specified as temporary become predominant conditions.<br><br>Forecast conditions specified as temporary do not occur during the cardinal hour as forecast<br><br>Forecast conditions specified as temporary are no longer expected to occur |
| **Changes to Predominant Conditions** | Forecast change conditions occur before the beginning of the specified period of change and are expected to persist<br><br>Forecast change conditions do not occur within 30 minutes after the specified time.<br><br>Forecast change conditions are no longer expected to occur |
| **Representative Conditions** | Forecast conditions are not considered representative of existing or forecast conditions and amending the forecast improves safety, flight planning, operations efficiency, or assistance to in- |

**2.3. Off-Station Briefing Support.** The 7 OSS/OSW supports off station Dyess aircrews with DD 175-1 and graphical products via fax, email and/or telephone.

2.3.1. The 7 OSS/OSW will make the determination if weather support will be provided by the weather flight if duties and time permits, or if weather support will be coordinated with other agencies.

2.3.2. The 7 BW/317 AG aircrews conducting missions at locations other than Dyess may receive briefing support in the form of DD 175-1's, verbal briefings over the phone, and updates to briefings. The 7 OSS/OSW will provide support to these missions or will arrange for support with other weather agencies.

**2.4. MISSIONWATCH.** The forecaster monitors flying routes and missions briefed to the 7 BW and 317 AG aircrews, and informs the appropriate squadron top three or SOF of any significant unforecast weather expected to impact the flight. The forecaster monitors the weather along the route of flight from takeoff until landing back at Dyess or the first destination (for aircraft not returning to Dyess). The 7 BW and 317 AG MISSIONWATCH thresholds are defined in **Attachment 4.**

**2.5. Low-Level Instrument Route (IR) Closures.** The 7 OSS/OSW will immediately notify the SOF and recommend a low level route be closed when the forecaster identifies any meteorological condition listed below that is affecting or will affect IR 178, IR 126, or IR 109.

2.5.1. The following conditions may warrant route closure IAW ACCI 11-B-l V3, and AFI 11202 V3_ACCSUP:

2.5.1.1. Observed moderate or greater icing.

2.5.1.2. Observed or forecast moderate or greater Mountain Wave turbulence. Observed or forecast severe turbulence reported by a military CAT II aircraft.

2.5.1.3. Altitude variation of -400ft or below with instrument flight rule (IFR) conditions.

2.5.1.4. Thunderstorms in the route.

2.5.1.5. Surface winds observed over 35 kts sustained or greater.

2.5.2. When the SOF closes a route, the forecaster contacts the Dyess command post to inform them of the closing, specifying what condition closed the route, and expected time of reopening.

2.5.3. The forecaster will also notify the 9 BS/28 BS duty desks and 7 OSS/OSR, Dyess Airspace and Ranges, at 696-3666 or 668-4416 (cell) to notify them when low-level routes have been closed/opened.

2.5.4. The 7 OSS/OSW will maintain a vigorous MISSIONWATCH of affected routes and will provide continuous weather updates to the SOF.

**2.6. B-1 Planning Weather Support.** The 7 OSS/OSW provides a planning weather brief for each of the B-1 flying squadrons to include the 77 TES and 337 WS, and posts it on the Dyess 7 OSS/OSW webpage (**https://cs3.eis.af.mil/sites/AC-OP-02-90/default.aspx**) NLT 0830L Monday through Friday.

**2.7. TAWS Support.** The 7 OSS/OSW creates electro-optical decision aids (EOTDA) data for B-1 Sniper Pod missions using TAWS.

2.7.1. The "Sniper Pod Request Datasheet" (Figure 2.1.) can be found on the Dyess 7 OSS/OSW webpage under the weather requests tab. Requests must be faxed or e-mailed to the 7 OSS/OSW 3 hrs prior to the weather brief time.

2.7.2. The 7 OSS/OSW will provide thermal crossover, target detection range, and solar/lunar data for requested target locations and times.

**Figure 2.1. Sniper Pod Request Datasheet**

**SNIPER POD REQUEST DATA SHEET**

1.) Choose the Appropiate Tab at the Bottom of the Page .
2.) Complete in Excel. Type in POC information, then use the drop-down menus for data entry.
3.) Save as a PDF and email to 7OSS/A3W@us.af.mil or fax to 696-4458 / DSN 461-4458. Confirm receipt of request. (Please complete and

| POC Info | | | |
|---|---|---|---|
| Squadron: | | Call Sign: | |
| Aircrew POC: | | Aircrew Phone #: | |
| Aircrew E-mail: | | Time on Target: | |
| Delivery Date: | | Delivery Time (L): | |

| TARGET Info | | | |
|---|---|---|---|
| Target Location (Pre-fill): | | | |
| Target Location (User Defined) w/ Lat/Lon | | | |
| Target Category: | | Target Sub-category: | |
| Target: | | | |
| Background 1: | | Surface Slope: (Deg) | |
| | | Downslope Direction: (Deg True | |
| | | Albedo: | |
| | | Clutter: | |
| | | | |
| | | | |
| | | Sensor View Direction: (Deg) | |
| Background 2: | | | |
| | | | |
| | | | |
| | | | |
| Background 3: | | | |
| | | | |
| | | | |
| | | | |
| TARGET STATUS: | | | |
| Altitude: (AGL) [if applicable] | | Heading: (True) [if applicable] | |
| Operating State: (if applicable) | | Speed: (mph) [if applicable] | |
| Slope Orientation: (if applicable | | | |
| ACQUISITION: | | | |
| Altitude: (AGL) [if applicable] | | Heading: (True) [if applicable] | |
| OUTPUT: | | | |

| Graph 1 | | Graph 2 | |
|---|---|---|---|
| Plot Type: | | Plot Type: | |
| Type of Analysis: | | Type of Analysis: | |
| Graph Type: | | Graph Type: | |
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| | | | |
| | | | |
| | | | |
| **Graph 3** | | **Graph 4** | |
| Plot Type: | | Plot Type: | |
| Type of Analysis: | | Type of Analysis: | |
| Graph Type: | | Graph Type: | |
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| | | | |

Send as an attachment in pdf format to 7OSSA3W@dyess.af.mil

## Chapter 3

## AIRFIELD WEATHER SERVICES

### 3.1. General.

3.1.1. The forecaster performs a Basic Weather Watch (BWW), and fills an "Eyes Forward" role for the 26 OWS. The official weather observation is produced using the AN/FMQ-19 AMOS in either a "fully automated," "augmented" mode IAW AFMAN 15-111. The FMQ-19 observations are augmented IAW Paragraph 3.8 of this instruction.

3.1.2. The FMQ-19 sensor group at the approach end of the active runway is the official point of observation. The alternate observation point when supplementing or backing-up the FMQ-19 is on the airfield side of Building 9001, on the red marked (DV) pavement.

3.1.3. Fully automated observations are produced and disseminated 24/7 through JET. An augmented FMQ-19 observation is only available when the weather station is open and/or when the criterion in Table 3.4. for supplementing or backing up an observation is met.

**3.2. Basic Weather Watch (BWW).** When supplementing or backing-up the FMQ-19 is required, the 7 OSS/OSW conducts a BWW IAW AFMAN 15-111. A BWW will be conducted when the airfield is open and during periods when any of the mandatory augmentation of AMOS is required IAW Chapter 3. Due to these other weather duties, weather technicians on duty may not detect and report all weather changes as they occur. During a BWW, weather technicians will recheck weather conditions, at intervals not to exceed 20 minutes since the last observation/recheck, to determine the need for a SPECI observation, when any of the following conditions are observed to be occurring or are forecast to occur within 1 hour:

3.2.1. Ceiling forms below or decreases to less than 1,500 feet.

3.2.2. Ceiling dissipates, or increases to equal or exceed 1,500 feet.

3.2.3. Visibility decreases to less than 3 statute miles (4800 meters).

3.2.4. Visibility increases to equal or exceed 3 statute miles (4800 meters).

3.2.5. Precipitation (any form).

3.2.6. Thunderstorms.

3.2.7. Fog or Mist.

3.2.8. All supplemental criteria specified in Table 3.4.

3.2.9. During mandatory back up of AMOS.

3.2.10. In addition to the above minimum requirements, weather technicians will remain alert for any other changes in weather conditions that will require a SPECI observation. Weather technicians will also monitor local area observational and forecast products as often as necessary to keep abreast of changes expected to affect their area of responsibility.

3.2.11. When a reliable source (Dyess Tower personnel, pilots, etc.) reports weather conditions different from the previous report, weather personnel will re-evaluate the forecast and disseminate a new observation as required.

**3.3. Eyes Forward Role for 26 OWS.**

3.3.1. The forecaster provides “eyes forward" by providing information to 26 OWS concerning local area weather and unforecast changes and contacts the 26 OWS when:

3.3.1.1. Severe weather signatures on radar or METSAT are identified.

3.3.1.2. Watch/warning/advisory criteria are occurring / expected to occur or are in effect and is not expected to occur.

3.3.1.3. A warning/advisory issued by the 26 OWS is not occurring or expected to occur.

3.3.1.3.1. If weather imminently poses a hazard to life and property and notification to the 26 OWS is not possible, or if there is insufficient time, issue the forecast weather warning yourself. Notify the 26 OWS when possible.

3.3.1.4. The 7 OSS/OSW will alert the 26 OWS to developing situations not coded in meteorological reports that potentially drive amendments to forecast products from the OWS or impact flight safety.

3.3.1.5. Provide the 26 OWS severe weather reports not normally available through standard observations. These include reports from local indigenous sources, local law enforcement, local news media, and unit personnel. These reports will be passed immediately after fulfilling any local distribution requirement (i.e., a special weather observation). If this is not possible, pass the reports as soon as practical to assist the 26 OWS in post-analysis and verification.

3.3.1.6. Anytime the TAF needs to be amended

3.3.1.7. Relay all PIREPs to the 26 OWS.

3.3.1.8. Notify the 26 OWS when MISSIONWATCH indicates 26 OWS regional level products may be, or may become, unrepresentative when compared to current or expected weather conditions.

**3.4. Cooperative Weather Watch (CWW).** The CWW is a program where qualified non-weather personnel monitor the weather to assist in the reporting of weather conditions that could affect flight safety or are critical to the safety or efficiency of other local operations and resources. Dyess tower personnel participate in the CWW IAW AFI 13-204V3, *Airfield Operations Procedures and Programs* and the 7 OSS/OSW provides initial weather training to all Dyess tower controllers in support of this program. When informed by Dyess tower personnel of changes in weather conditions, the forecaster verifies and validates weather conditions and disseminates special observations as required. Specific responsibilities are outlined in Paragraph 8.5.

**3.5. Surface Weather Observations.**

3.5.1. Surface Observation Elements: The following elements are observed and disseminated locally and long line. See AFMAN 15-111 for a complete breakdown of the METAR/SPECI code.

3.5.1.1. Winds: Wind velocity is recorded using sensors at both ends of the runway and the wind value for the active runway is reported in the observation. Wind direction is reported in magnetic to the nearest ten degrees and speed is measured to the nearest knot.

The Dyess tower and 7 OSS/OSW equipment provide digital readings for wind direction in degrees magnetic, speed, gust, and variability. The weather observation represents a 2-minute average for the period preceding the time of observation with maximum wind gusts based on a 10-minute period before the observation.

3.5.1.2. Prevailing Visibility: The FMQ-19 on the approach end of the active runway determines prevailing visibility. When supplementing or backing-up the FMQ-19, the forecaster uses known landmarks, buildings, or unfocused lights as markers to determine prevailing visibility, which is the visibility considered to be representative of the visibility conditions at the weather unit. This representative visibility is the greatest visibility equaled or exceeded throughout at least half the horizon circle, not necessarily continuous (i.e., it may be composed of sectors distributed anywhere around the horizon circle).

3.5.1.3. Runway Visual Range (RVR): The range over which the pilot on the center line of a runway can see the runway surface markings and the lights delineating the runway or identify its center line. The FMQ-19 located near the approach end of the runway is used to measure RVR.

3.5.1.4. Obstruction to Vision/Present Weather: The FMQ-19 and/or the forecaster determine and report obstructions to vision whenever the prevailing visibility is less than 7 SM. Present weather includes thunderstorms and precipitation.

3.5.1.5. Sky Condition and Ceiling: A visual observation of the clouds and atmospheric conditions consisting of cloud type or phenomena, amount and height above the surface. The FMQ-19 and/or the forecaster determines types, heights and amounts. Sky condition is based upon the amount of sky coverage. "SKC" represents a sky free of clouds and/or obscuring phenomena. "FEW" indicates coverage of 1/8 to 2/8 coverage of the sky. "SCT" represents coverage of 3/8 to 4/8 of the sky. "BKN" means 5/8 to 7/8 coverage and "OVC" means 8/8 coverage. The FMQ-19 and/or the forecaster determines cloud heights, including vertical visibility (VV), by using a laser beam ceilometer, known heights of objects in the area, weather radar, or estimation based on cloud type and observer experience. The laser beam ceilometer is located near both approach ends of the runway and is accurate for cloud heights at or below 25,000 feet.

3.5.1.6. Temperature and Dew Point: The FMQ-19 Temperature and Relative Humidity sensors provide current temperature and dew point readings. Readings are reported to the nearest degree centigrade and are disseminated on all METAR and Special observations.

3.5.1.7. Altimeter Setting (ALSTG) and Pressure Altitude (PA**)**: The FMQ-19 is the primary pressure-measuring instrument. The secondary measuring instruments are the Kestrel and the TMQ-53. ALSTG will be included on all observations, but PA will only be included on locally disseminated observations.

3.5.1.8. Remarks: Disseminated on all observations, as appropriate, to present a more precise picture of the existing weather conditions such as varying visibility or distances and movement of thunderstorms near the airfield.

3.5.2. Non-Duty Hours: The FMQ-19 produces and disseminates fully automated observations during non-duty hours.

**3.6. Types of Surface Weather Observations.**

3.6.1. Record Observations (METAR): These observations are transmitted between 55 and 59 minutes past each hour. The observation contains the following elements:

3.6.1.1. Time (UTC).

3.6.1.2. Wind direction (magnetic), speed (knots).

3.6.1.3. Prevailing visibility (statue miles).

3.6.1.4. RVR (feet).

3.6.1.5. Present weather and obstructions to vision including precipitation (standard METAR code).

3.6.1.6. Sky condition (standard METAR code).

3.6.1.7. Temperature (Celsius).

3.6.1.8. Dew point (Celsius).

3.6.1.9. Altimeter setting (inches).

3.6.1.10. Remarks.

3.6.1.11. PA and DA (feet) (Reported locally only).

3.6.1.12. Sample METAR Observation: KDYS METAR 1255Z AUTO 14003KT 10 CLR 24/17 ALSTG 30.02 RMK AO2 CIG 150 RWY34 SLP139 T02430174 $ PA +1698 DA +3379;

3.6.2. Special Observations (SPECI): Special observations have the same format as record observations. When special observation criteria are met, a SPECI observation is taken and disseminated. The following are the Dyess AFB special observation criteria:

3.6.2.1. Visibility: Prevailing visibility (rounded to reportable values) decreases to less than, or if below, increases to equal or exceed:

**Table 3.1. Visibility Chart**

| |
|---|
| 3 miles (AFMAN 15-111) |
| 2 1/2 miles (DoD FLIPS) |
| 2 miles (AFMAN 15-111& DoD FLIPS) |
| 1 3/4 miles (DoD FLIPS) (see **NOTE**) |
| 1 1/2 miles (DoD FLIPS) |
| 1 1/4 miles (DoD FLIPS) |
| 1 mile (AFMAN 15-111, DoD FLIPS, and NAOC) |
| 7/8 mile (DoD FLIPS) |
| 3/4 mile (DoD FLIPS) |
| 1/2 mile (AFMAN 15-111 and DoD FLIPS) |
| **NOTE**: Applies when Approach Light System (ALS) is INOP (DOD FLIP) |

3.6.2.2. Ceiling: The ceiling (rounded to reportable values) forms or dissipates below, decreases to less than, or if below, increases to equal or exceed:

**Table 3.2. Ceiling Chart**

| |
|---|
| 3000 feet (AFMAN 15-111) |
| 2200 feet (C-130 Overhead Pattern at Dyess ) |
| 2000 feet (AFI 11-202V3) |
| 1700 feet (C-130 Overhead Pattern at Dyess) |
| 1500 feet (AFMAN 15-111) |
| 1000 feet (AFMAN 15-111) |
| 800 feet (AFMAN 15-111 & CAT I ILS/CAT I Glide Slope Req) (see **NOTE**) |
| 700 feet (AFMAN 15-111 & DoD FLIPS) |
| 600 feet (DoD FLIPS) |
| 500 feet (AFMAN 15-111 & DoD FLIPS) |
| 300 feet (AFMAN 15-111 (Bases with assigned Air Defense Aircraft)) |
| 200 feet (DoD FLIPS) |
| **NOTE**: A SPECI is required when the ceiling (rounded off to reportable values) forms or dissipates below, decreases to less than, or if below, increases to equal or exceed 800 feet unless an intervening Special is required. Required for CAT I and II Instrument Landing System (ILS) Localizer Critical Areas, CAT I and II ILS Glide Slope Critical Areas, Mobil Microwave Landing System (MMLS) Azimuth Critical Area, and MMLS Elevation Critical Area. |

3.6.2.3. Sky Condition: A layer of clouds or obscuring phenomena aloft is observed below 700 feet and no layer reported below 700 feet in the preceding observation.

3.6.2.4. Tornado or funnel cloud is observed, disappears from sight, or ends. If a tornado occurred within the past hour according to outside sources and was not observed or recorded from the weather station a remark will be included on locally derived observation form AF Form 3803, *Surface Weather Observations (METAR/SPECI),*(also refer to AF Form 3803).

3.6.2.5. Wind Shift: Any wind direction change of 45 degrees or more in less than 15 minutes and wind speed after the shift is greater than or equal to 10 knots.

3.6.2.6. Squall: When occurring. A strong wind characterized by sudden onset in which the wind speed increases at least 16 knots and is sustained at 22 knots or more for at least one minute. A special observation is not required to report a squall if one is currently in progress. Although a wind event, SQ is reported as a present weather event.

3.6.2.7. Volcanic Eruption: Eruption or volcanic ash cloud first noted.

3.6.2.8. Thunderstorm (occurring at the station) begins or ends (15 minutes after thunder is last heard). **NOTE**: A SPECI is not required to report the beginning of a new thunderstorm if one is currently reported.

3.6.2.9. Precipitation:

3.6.2.9.1. Hail begins or ends.

3.6.2.9.2. Freezing precipitation and/or ice pellets begin, ends or changes intensity.

3.6.2.9.3. Any other type of precipitation begins or ends. **NOTE**: Except for freezing rain, freezing drizzle, hail and ice pellets, a special observation is not required for change in type (i.e.,, drizzle changing to snow) or the beginning/ending of one type while another is in progress (i.e.,, snow changing to rain and snow.

3.6.2.10. Tornado or funnel cloud is observed, disappears from sight, or ends. If a tornado occurred within the past hour according to outside sources and was not observed or recorded from the weather station a remark, it will be included on the locally derived observation form, AF Form 3813.

3.6.2.11. RVR: Prevailing visibility first observed < 1SM/1600 meters, again when prevailing visibility goes above 1SM/1600 meters. The highest value decreases to less than or if below, increases to equal or exceed:

**Table 3.3. RVR Chart**

| |
|---|
| 6,000 feet (AFMAN 15-111 and DoD FLIPS) |
| 5,500 feet (DoD FLIPS) (see **NOTE***) |
| 5,000 feet (AFMAN 15-111 and DoD FLIPS) |
| 4,500 feet (DoD FLIPS) |
| 4,000 feet (DoD FLIPS) |
| 2,400 feet (AFMAN 15-111 and DoD FLIPS) |
| 2,000 feet (AFMAN 15-111) (see **NOTE**) |
| 1,600 feet (B-1B and C-130 departure threshold) |
| 1,000 feet (min authorized by HHQ missions and OG/CC approval) |
| **NOTE**: Required for CAT I and II ILS Localizer Critical Areas, Precision Approach Radar (PAR) Touchdown Areas, and MMLS Azimuth Critical Area. EXCEPTION: Not required if published RVR minima is above 2000 feet (i.e., not required for RVR minima of 2400 feet). |
| **NOTE***: Applies when ALS is INOP (DOD FLIP). |

3.6.2.11.1. Transmit RVR when prevailing visibility decreases to $\leq$ 1SM.

3.6.2.11.2. Transmit RVR when prevailing visibility increases to > 1SM.

3.6.2.11.3. RVR is first determined as unavailable (RVRNO) for the runway in use, and when it is first determined that the RVRNO report is no longer applicable, provided conditions for reporting RVR exist.

3.6.2.12. Upon Resumption of Observing Function: Within 15-minutes after the weather technician returns to duty following a break in observing coverage or augmentation at the observing location unless a record observation is filed during that 15-minute period.

3.6.2.13. Ten minutes prior to the arrival and departure of Air Force One.

3.6.2.14. Alert Observations: Upon hearing the klaxon sound, when notified of an aircraft alert, or when requested to by the Dyess command post the forecaster immediately disseminates a SPECI observation. This observation is transmitted within 30 seconds; "ALERT WX OBS" is appended to the local remarks.

3.6.2.15. Aircraft Mishap (back-up mode only): Taken immediately following notification or sighting of an aircraft mishap at or near the observing location unless there has been an intervening observation.

3.6.2.16. Any other meteorological situation that, in the forecasters opinion is critical.

3.6.2.16.1. Tower Visibility: Transmit a SPECI with the tower visibility as a remark when notified by the control tower that tower visibility has decreased to less than or, if below, increased to equal or exceed 1, 2, or 3 statute miles and the control tower visibility differ from the prevailing visibility.

3.6.2.16.2. Sample SPECI Observation: KDYS SPECI 0223Z 02011KT 3200 BR FEW010 SCT015 OVC030 22/21 ALSTG 29.75 RMK TWR VIS 1 1/4 VIS N 1 PA +616 DA +1751 23/RGB

3.6.2.17. Sample SPECI Observation: KDYS SPECI 0223Z 02011KT 3200 BR FEW010 SCT015 OVC030 22/21 ALSTG 29.75 RMK TWR VIS 1 1/4 VIS N 1 PA +616 DA +1751 23/RGB

3.6.3. **Local Observations:** An unscheduled observation, reported to the nearest minute, not meeting SPECI criteria. Take a full element LOCAL for altimeter setting changes during back-up of FMQ-19 pressure sensor. A full element LOCAL is required because it will replace the previous METAR in Dyess tower AFAS System.

3.6.3.1. LOCAL altimeter setting observations are taken during back-up of AMOS pressure sensors at an interval not to exceed 35 minutes when there has been a change of 0.01 inch Hg (0.3 hPa) or more since the last ALSTG value. A METAR or SPECI taken within the established time interval will meet this requirement.

**3.7. FMQ-19 Automated Meteorological Observing System (AMOS):** The FMQ-19 is capable of taking and disseminating "fully automated" weather observations 24/7. Augmentation is the process of having position-qualified weather technicians manually add or edit data to an observation generated by a properly sited AMOS. The forecaster must maintain situational awareness of the current weather conditions and AMOS observations and augments (supplements or backs up) the observations as required.

3.7.1. Supplementing is a method of manually adding meteorological information to an automated observation that is beyond the capabilities of the automated observing system to detect and/or report. Weather technicians will perform a BWW and be prepared to supplement observations when the airfield is open and the weather conditions in **Table 3.4** are observed and/or forecast to occur within 1 hour. Weather personnel are required to log on to an ADS and be prepared to supplement whenever a watch or warning has been issued for tornadic activity. Weather technicians are not required to supplement during airfield closure hours for other **Table 3.4** criteria. **Note**: This does not relieve EUs of their AFI 10-229, *Responding to Severe Weather Events*, AFI 15-128, *Air Force Weather Roles and Responsibilities* and AFMAN 15-129, Volume 2, *Air Force Weather Operations – Exploitation*, responsibilities for responding to severe weather events during non-duty hours. EUs will continue to have SWAP in place to respond to severe weather threats. EUs should concentrate their SWAP efforts on eyes forward resource protection and notification efforts during airfield closure hours.

**Table 3.4. Mandatory Supplementary Weather Conditions - Body of Report**

| |
|---|
| Tornado (+FC) (Note) |
| Funnel Cloud (FC) (Note) |
| Waterspout (+FC) (Note) |
| Hail (GR) (local warning criteria only) |
| Volcanic Ash (VA) |
| Sandstorms (SS) or Duststorms (DS) (If local warning required) |
| Ice Pellets (IP) |
| Visibility <1/4 mile (400 meters) (AN/FMQ-19 only – if locally required) |
| Tower Visibility (see paragraph 3.6.2.16.) |
| **Mandatory Supplementary Weather Conditions- Remarks Section of Report** |
| Funnel Cloud (Tornadic Activity _B/ E(hh)mm_LOC/DIR_(MOV)) (Note)<br>Snow Depth (only during airfield operating hours and if heavy snow warning has been issued and snowfall is occurring) |
| **NOTE:** The immediate reporting of funnel clouds takes precedence over any other phenomena. |

3.7.1.1. The immediate reporting of funnel clouds takes precedent over any other phenomena.

3.7.2. Back-up is the method of manually providing meteorological data to an automated weather observation when the primary automated method is not operational or unavailable due to sensor and/or communication failure. When the airfield is open the forecaster backs-up the FMQ-19 if the system/sensor(s) is/are not operational or unavailable due to sensor and/or communication failure. The forecaster makes every attempt to immediately log out any broken equipment, except when immediate flight safety warrants otherwise. When the airfield is closed, the forecaster is not required to backup the FMQ-19 unless tornadic activity is occurring or forecast to occur.

3.7.2.1. 7 OSS/OSW leadership will use sound ORM practices to develop/document those operationally significant weather thresholds (normally provided by a fully operational AMOS) to report while operating in back-up mode. After allowing the AMOS (FMQ-19) sensor(s) the required averaging time the following criteria is augmented if unrepresentative due to ORM concerns:

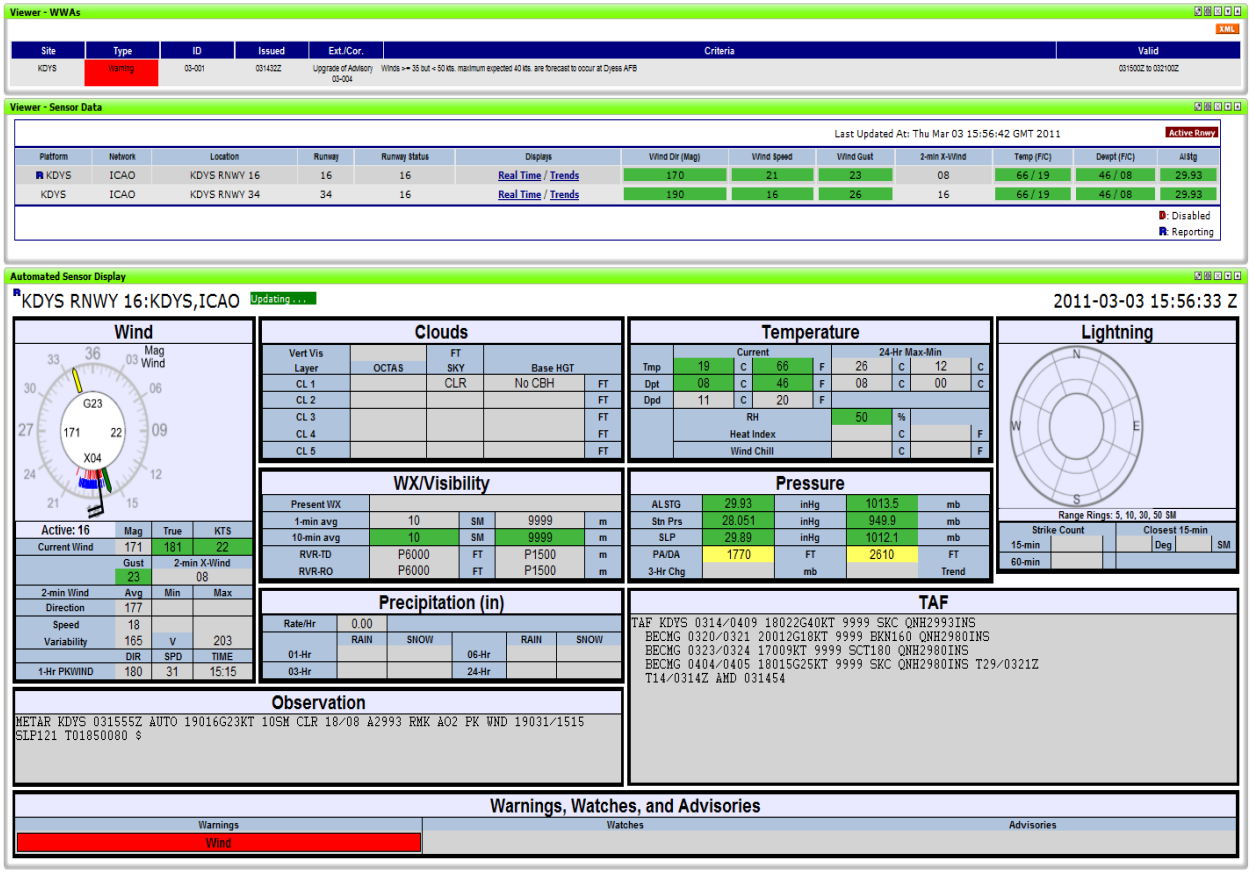
3.7.2.1.1. Any SPECI criteria AT & Below CIG 2200 and/or VIS 2 1/2 .

3.7.2.1.2. Any criteria warranting a watch, warning, and/or advisory.

3.7.2.1.3. There is no requirement to back-up the system/sensor when the airfield is closed, unless SWAP has been implemented and WWA criteria is met and not accurately reported in the interest of resource protection.

3.7.3. Automated Sensor display (ASD): The JET web server produces the ASD and is available on the AWOS/WWA portlet to JET users. The display derives data from sensors and weather instruments on the field to provide a graphic representation of wind and weather elements. The 26 OWS uses this display as a METWATCH tool when the 7 OSS/OSW is closed.

## Figure 3.1. JET View



# Chapter 4

## TROPICAL CYCLONE AND VOLCANIC ERUPTION SUPPORT

### 4.1. Tropical Cyclone.

4.1.1. **General.** The National Hurricane Center (NHC), is the governing authority for all hurricane advisories, watches, and warnings in the Continental United States. While Dyess AFB is not located in a hurricane threat zone, many Dyess AFB assets travel to hurricane prone regions or Dyess AFB may receive aircraft for bed-down from hurricane-prone installations. Hurricane season lasts from June through November; however, hurricanes have occurred at other times throughout the year. The 26 OWS will produce a Tropical Cyclone Threat Assessment Product (TC-TAP) whenever Dyess AFB is expected to receive sustained winds of GTE 35 knots during the next 96 hours as a result of a tropical cyclone. The TC-TAP uses the National Hurricane Center or Joint Typhoon Warning Centers forecast for the tropical cyclones track and intensity and does not deviate from this forecast.

4.1.2. **7 OSS/OSW Commander.**

4.1.2.1. Operational Weather Squadrons (OWSs) will produce a TC-TAP for locations within their area of responsibility (AOR) expected to receive sustained winds > 35-kts during the next 96 hours as a result of a tropical cyclone. The 7 OSS/OSW Commander will use this product to provide installation commander(s) with forecasts of the expected onset, intensity, end times of significant winds, and closest point of approach for the associated storm.

4.1.2.2. Ensures customers understand that 48-hour and 72-hour outlooks (or longer if issued) contain a high degree of uncertainty, are for planning purposes only, and are subject to change. This notification must include the forecast error probability statements included in discussion bulletins or on the forecast products.

4.1.3. Duty Forecaster.

4.1.3.1. The 7 OSS/OSW will use the MEFP to tailor the official tropical cyclone forecasts into a specific mission forecast product for their supported agencies. Tailoring may include factors such as specific local effects such as terrain or relative position to the storm.

4.1.3.2. Provides tropical cyclone information in flight weather MWPs for aircraft leaving Dyess if the flight path is close to the tropical cyclone.

4.1.3.3. Provides or arranges for weather support for all transient aircrew evacuated to Dyess. The transient aircrew's home station weather flight should have contacted Dyess 7 OSS/OSW prior to the evacuation of the aircraft. If not, the forecaster contacts the aircrew's home station weather flight before providing support.

### 4.2. Volcanic Eruption.

4.2.1. **General.** The civil Volcanic Ash Advisory Centers (VAAC)National Hurricane Center (NHC), are the governing authority for all volcanic eruption ash cloud forecasts. While Dyess AFB is not located in a volcanic eruption threat zone, many Dyess AFB assets

travel through volcanic eruption prone regions. Weather Flights will utilize appropriate theater-specific volcanic ash products from the VAAC and supplement with 2WS products and services. All VAAC and 2 WS products are available on the Air Force weather web service.

4.2.2. **7 OSS/OSW Commander.**

4.2.2.1. The 7 OSS/OSW Commander will use the VACC theater-specific volcanic ash products and supplement with 2WS products and services to provide installation commander(s) with forecasts of the expected onset, intensity, end times of volcanic ash clouds.

4.2.3. Duty Forecaster.

4.2.3.1. Provides volcanic ash cloud information in flight weather MWPs for aircraft leaving Dyess if the flight path is close to a volcanic ash cloud.

# Chapter 5

## WEATHER WATCHES, WARNINGS AND ADVISORIES

**5.1. General.** Weather watches and warnings are special notices provided to supported agencies for potential or established weather conditions that pose a threat to life and/or property. Weather advisories are special notices provided to a supported agency when an established weather condition affecting its operations is occurring or forecast. All WWA's are issued within a 5 NM radius of Dyess AFB unless noted otherwise below.

5.1.1. The 26 OWS is responsible for issuing all forecast watches, warnings and advisories (WWAs) for Dyess AFB. The 7 OSS/OSW is the primary source for issuing observed warnings and advisories for Dyess AFB. When the 7 OSS/OSW is closed, the 26 OWS uses the 7 OSS/OSW's automated equipment in issuing WWAs until the standby forecaster arrives. Advisories for winds 25-34 kts, snow and/or sleet (with accumulation < 2 inches in 12 hours), potential B1 induction icing, visibility ≤ 1/8 mile and thunderstorm within 10 NM and 25 NM are issued by the 26 OWS when the airfield is closed. Customer responses and mission impacts are listed in **Attachment 5.**

### Table 5.1. Dyess AFB Weather Watch and Warning Criteria

| Weather Warnings | | | |
|---|---|---|---|
| **Warning Type** | **Criteria** | **Desired Lead Time** | **Issued By** |
| Tornado | Tornado or Funnel Cloud within 5nm | 15 Minutes | CU |
| Severe Thunderstorm | Damaging Winds ≥ 50 kts associated with thunderstorms and or Damaging Hail ≥ ¾ inch at Dyess AFB | 60 minutes | CU |
| Moderate Thunderstorm | High winds ≥ 35 kts and < 50 kts associated with thunderstorms and or Large Hail ≥ 1/4 inch and < 3/4 inch at Dyess AFB | 60 minutes | CU |
| Damaging Winds | Surface winds not associated with thunderstorms ≥ 50 kts | 60 minutes | CU |
| Strong Wind | Surface winds not associated with Thunderstorms ≥ 35 kts but < 50 kts | 60 minutes | CU |
| Freezing Precipitation | Any Freezing Precipitation | 60 minutes | CU |
| Heavy Rain | ≥ to 2 inches in 12 hours | 60 minutes | CU |
| Heavy Snow | ≥ to 2 inches in 12 hours | 60 minutes | CU |
| Blizzard Conditions | Blizzard Conditions (≥3hrs of sustained ≥ 30kt and ≤ 1/4sm) | 60 minutes | CU |
| Sandstorm | Sandstorm (prevailing vis ≤ 5/8sm) | 60 minutes | U |
| Lightning | Observed Lightning within 5NM of the Airfield | Observed | EU* |
| **An * denotes EU issued warnings issued by the 26 OWS when the exploitation unit is closed. All others will not be issued when the exploitation unit is closed.** | | | |

### Table 5.2. Dyess AFB Weather Advisories

| Weather Advisories | | | |
|---|---|---|---|
| **Criteria** | **Forecast/Observed** | **Desired Lead Time** | **Issued By** |
| Snow and/or sleet accumulation of < 2 inches in 12hrs | Forecast | 120 min | CU* |
| Frost | Forecast | 720 min | CU* |
| Winds 25-34kts | Observed | Observed | EU* |
| Thunderstorms within 25 NM of Dyess AFB | Observed | Observed | EU* |
| Thunderstorms within 10 NM of Dyess AFB | Observed | Observed | EU* |
| B1 Induction Icing Potential (Temp ≤ 47°F, and RH ≥ 50%, and/or Visible Moisture Present (rain, snow, | Observed | Observed | EU* |
| Visibility ≤ 1/8 mile (Security Forces) | Observed | Observed | EU* |
| Moderate or Greater Turbulence SFC-10,000 for CAT II Aircraft (C-130), and CAT IV Aircraft (B-1B) | Observed | Observed | EU |
| Moderate or Greater Icing SFC-10,000 | Observed | Observed | EU |
| Low-Level Wind Shear below 2,000 Feet | Observed | Observed | EU |
| Crosswind ≥ 26 Knots | Observed | Observed | EU |
| (NAOC) Thunderstorms within 50 NM of Dyess AFB | Observed | Observed | EU |
| (NAOC) Visibility ≤ 1 Mile | Observed | Observed | EU |
| (NAOC) Moderate or Greater Turbulence Below 10K within 50 NM of KDYS | Observed | Observed | EU |
| (NAOC) Moderate or Greater Icing Below 10K within 50 NM of KDYS | Observed | Observed | EU |
| (NAOC) Thunderstorms with Hail < ½ inch | Forecast | 30 Min | EU |
| (NAOC) Crosswind 15-19 Knots (Wet Runway) | Observed | Observed | EU |
| (NAOC) Crosswind 20-25 Knots (Dry Runway) | Observed | Observed | EU |
| **An * denotes advisories issued by the 26 OWS when the Weather Flight is closed. All others will not be issued when the exploitation unit is closed.** | | | |

**5.2. Rules for Issuing WWA's:**

5.2.1. Include maximum hail size, maximum rain/snow accumulation, or maximum wind speed as applicable in warnings and advisories.

5.2.2. Only one warning will be in effect at a given time (and will include multiple warning criteria as required) except for forecast tornado warnings and/or observed lightning warnings.

5.2.3. Warnings take precedence over advisories for the same phenomena. Forecast advisory/warning valid for the same phenomena will not be valid for the same time. Conversely, warnings and multiple forecast advisories for different phenomena may be valid for the same time.

5.2.4. Watches are stand alone products based upon potential and are unaffected by warnings or advisories for the same phenomena.

5.2.5. Forecasted warnings and advisories will maintain horizontal consistency with TAF and other forecast products. Watches are not required to be included in the body of the TAF-coded forecast depending on circumstance

5.2.6. A watch is not a substitute for a warning (WW). Units will issue warnings, as required, regardless of whether or not a watch had previously been issued.

5.2.7. All watches and WWs are issued for specific and distinct locations.

5.2.7.1. The area affected by a watch or warning will be clearly indicated in the text of the watch/WW.

5.2.7.2. Watches may be issued for an area larger than the corresponding warning (watch for base X and surrounding local flying area, WW for the aerodrome).

5.2.7.3. A WW affects an area no larger than 5 nautical miles (nm) radius.

5.2.8. The lightning watch and the observed lightning warning are separate entities and do not supersede previously issued watches or WWs for other criteria.

5.2.9. A separate valid time will be specified for each criterion when warranted.

5.2.9.1. All times used in a watch or WW will be expressed in coordinated universal time (UTC) and local time. **Exception:** A valid time is not used in observed warnings. In place of valid time, the following statement is used: "*Valid until further notice*".

5.2.10. A forecast WWA will not be issued for a single unforecasted event that is not expected to persist or recur.

5.2.11. The 26 OWS will issue observed warnings when 7 OSS/OSW is not on duty, as capability exists until the standby forecaster arrives.

5.2.12. More than one advisory may be in effect at the same time for the same location, but only one will be in effect for a particular phenomenon at the same time.

5.2.13. Under rare circumstances EUs may, without prior coordination, issue WWs to facilitate resource protection actions when sufficient time does not exist to communicate a change in weather with the characterization unit. EUs will forward pertinent information to the servicing characterization unit to ensure the warning is entered into the Air Force weather dissemination system.

5.2.14. The 7 OSS/OSW will issue observed WWAs to include lightning warnings while on duty.

5.2.15. Time permitting, the Severe Weather Action Team (SWAT) leader queries the 7 BW/CC through the Dyess command post on whether to convene a kilo weather conference prior to issuing or upon issuing a weather warning for tornadoes, 3/4 inch hail, winds > 50kts, heavy snowfall, or freezing precipitation. In this conference the forecaster explains to the wing staff, group commanders, and other appropriate agencies the weather threat to Dyess AFB.

5.2.16. Tornado Warnings:

5.2.16.1. The normal sequence of events for a tornado starts with the 26 OWS or 7 OSS/OSW issuing a tornado watch followed by a tornado warning. A tornado watch means conditions are favorable for tornado development within 5 NM of Dyess AFB. A tornado warning means a certified observer, law enforcement representative, or ATC controller has sighted a tornado, or radar indicates one that may threaten Dyess AFB.

5.2.16.2. In addition to identifying tornadoes, Doppler radar (also called NEXRAD) can identify mesocyclones, which are the precursors to the formation of tornadoes. Over 50 percent of all manually verified mesocyclones develop into tornadoes. When the NEXRAD projects either a tornado or a confirmed mesocyclone to enter the Dyess AFB area, the 7 OSS/OSW or 26 OWS issues a tornado warning.

5.2.16.3. If there is a radar indicated or confirmed tornado moving toward Dyess AFB, the 7 OSS/OSW contacts the Dyess command post directly to issue a tornado warning. The command post activates the base siren immediately and disseminates the warning to priority customers IAW established procedures. When contacting the Dyess command post weather personnel will provide location, speed and direction of movement of the tornado or radar signature. This information is also included in the text of the warning in IWWC.

5.2.16.4. Dyess AFB conducts a Natural Disaster Response Exercise (NDRE) focused on a tornado scenario in late winter/early spring prior to severe weather season.

5.2.17. Snow/Sleet Advisory and Heavy Snow Warning:

5.2.17.1. Upon issuance, the Base Snow and Ice Plan will be activated IAW Winter Weather Procedures.

5.2.18. DELETED

5.2.18.1. DELETED

5.2.18.2. DELETED

5.2.19. Thunderstorm advisories DO NOT imply surface crosswind and wind gusts up to and including 34 knots. The surface crosswind and surface wind advisory **will be issued separately**.

5.2.19.1. Thunderstorm advisories may be upgraded and downgraded between each other. (i.e., upgrade from TS within 25NM to TS within 10NM). **NOTE:** More than one advisory may be in effect at the same time for the same location, but only one will be in effect for a particular phenomenon at the same time.

**5.3. Dissemination of Watches, Warnings, and Advisories.**

5.3.1. JET is the primary method of dissemination for all weather watches and warnings to base agencies. When open, the 7 OSS/OSW ensures the Dyess consolidated command post, Dyess tower, SOF, AMOPS and NAOC (if applicable) have received all watches and warnings issued by the 26 OWS and the 7 OSS/OSW. Each agency is responsible for disseminating the information to the appropriate units IAW the Dyess Weather Notification Chain, Figure 5.1. Any agency having problems with their JET software will contact the JET system manager at 696-2524.

5.3.2. Backup dissemination of all watches and warnings is via telephone to the Dyess command post, Airfield Ops, tower, and NAOC (if applicable). Airfield Ops relays all watches and warnings via the secondary crash net (SCN).

5.3.2.1. Example of Disseminated WWrng/WWtch over JET.

5.3.2.1.1. Watch:

**Table 5.3. Weather Watch Chart**

| |
|---|
| **DYESS AFB WEATHER WATCH 08-A12** |
| **VALID 12/1000Z (12/0500L) TO 12/1300Z (12/0800L)** |
| **THE POTENTIAL EXIST FOR LIGHTNING TO OCCUR WITHIN 5 NM OF DYESS AFB. IF LIGHTNING IS OBSERVED WITHIN 5 NM A WARNING WILL BE ISSUED.** |

5.3.2.1.2. Warning:

**Table 5.4. Weather Warning Chart**

| |
|---|
| **DYESS AFB WEATHER WARNING 08-A01** |
| **VALID 12/1130Z (12/0630L) TO UFN (UFN)** |
| **LIGHTNING IS OCCURING WITHIN 5 NM OF DYESS AFB.** |
| **THIS WARNING UPGRADES WEATHER WATCH 08-A12.** |

**5.4. Verification of Watches, Warnings, and Advisories.**

5.4.1. The verification radius is based on desired lead time requirements (AFMAN 15-129V1 Figure 4.1).

5.4.2. The 26 OWS will verify all WWAs transferred to them from the 7 OSS/OSW during/after a disruption in services and enter the verification data in the Air Force weather dissemination system. The 7 OSS/OSW will provide any assistance in this process and track verification when the forecast WWA was issued until it is passed to the 26 OWS.

5.4.3. Warnings and advisories will be verified using all available sources of representative sensed or observed data or subjective analysis (when appropriate) within an expanding radius around a specific geographic location based on the desired lead-time requirement of the warning or advisory product.

5.4.4. Observed warnings and advisories are verified using sensed or observed data within the specification distance from the point location. For example, a warning for lightning within 5NM of an airfield is issued and simultaneously verified based on lightning strikes, radar returns within the specification distance, or reporting TS as a weather type in the body of an observation.

5.4.5. Warnings and advisories issued with lead-times are verified using an expanded verification radius, not to exceed 15nm, around the affected location.

5.4.6. Units issuing WWAs will verify each phenomenon separately except severe thunderstorm and moderate thunderstorm warnings will be verified upon first occurrence of either wind or hail threshold.

**5.5. Rules for Amending, Extending, and Canceling WWAs**

5.5.1. When a warning or advisory no longer adequately describes the phenomenon's expected occurrence, a completely new warning or advisory with a new number will be issued.

5.5.2. WWAs are extended if the extension is issued prior to the expiration of the original notice.

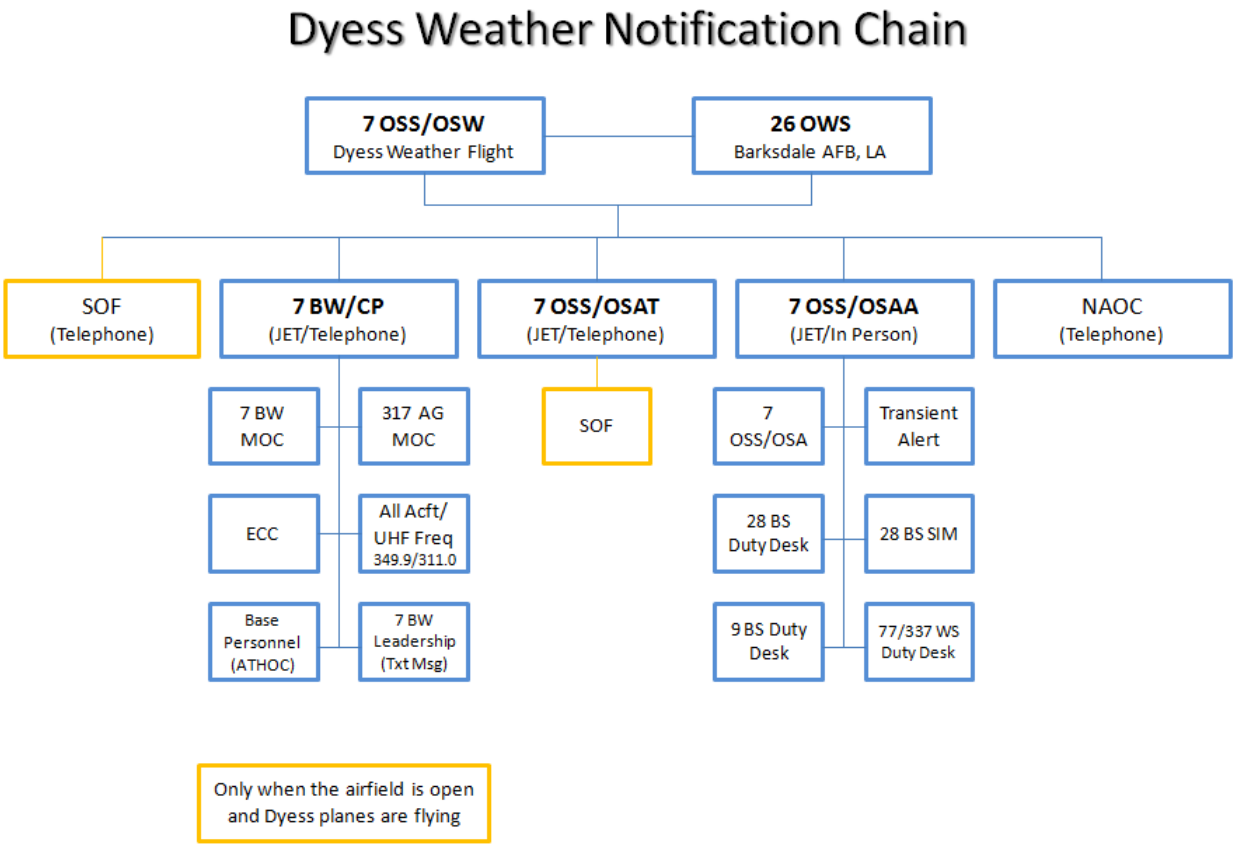
5.5.3. The text will clearly state how the amended or extended WWA affects any previously issued notice.

5.5.4. WWAs are cancelled when previously forecast/observed conditions are no longer occurring and are not expected to recur.

5.5.5. Lightning watches are cancelled only when the potential for lightning within the next 30 minutes is no longer forecast.

5.5.6. Observed Lightning warnings are cancelled when thunderstorms have dissipated or passed beyond 5NM and lightning is no longer occurring within 5NM of the installation. During B-1B operations, 7 OSS/OSW shall notify the SOF via telephone as soon as cancellation criteria is met. For lightning warning cancellations, include a statement indicating its affect on any previously issued warnings, such as "WEATHER WARNING #XX-XXX remains in effect" or — WEATHER WATCH #XX-XXX FOR LIGHTNING REMAINS IN EFFECT.

**Figure 5.1. Dyess Weather Notification Chain**




**NOTE**: AMOPS notifies the 28 BS SIM for tornado watches/warnings and lightning only

**5.6. Weather Warning Support for Snyder Electronic Scoring Site.** The 26 OWS produces and disseminates Point Weather Warnings (PWW) #TX 32 to the Snyder Electronic Scoring Site Manager using criteria in Table 5.5., IAW the 26 OWS MOA. The 26 OWS disseminates to DSN 461-8915, (325) 696-8915, Monday-Thursday 0800-0230 and Friday 0730 – 1600, excluding federal holidays.

**Table 5.5. Snyder, TX Weather Watch/Warning Criteria**

| Weather Warnings | | | |
|---|---|---|---|
| **Warning Type** | **Criteria** | **Desired Lead Time** | **Issued By** |
| Tornado | Tornado or Funnel Cloud within 5nm | 15 Minutes | CU |
| Severe Thunderstorm | Damaging Winds ≥ 50 kts associated with thunderstorms and or Damaging Hail ≥ ¾ inch at Dyess AFB | 60 minutes | CU |
| Moderate Thunderstorm | High winds ≥ 35 kts and < 50 kts associated with thunderstorms and or Large Hail ≥ 1/4 inch and < 3/4 inch at Dyess AFB | 60 minutes | CU |
| Damaging Winds | Surface winds not associated with thunderstorms ≥ 50 kts | 60 minutes | CU |
| Strong Wind | Surface winds not associated with Thunderstorms ≥ 35 kts but < 50 kts | 60 minutes | CU |
| Freezing Precipitation | Any Freezing Precipitation | 60 minutes | CU |
| Heavy Rain | ≥ to 2 inches in 12 hours | 60 minutes | CU |
| Heavy Snow | ≥ to 2 inches in 12 hours | 60 minutes | CU |
| Blizzard Conditions | Blizzard Conditions (≥3hrs of sustained ≥ 30kt and ≤ 1/4sm) | 60 minutes | CU |
| Sandstorm | Sandstorm (prevailing vis ≤ 5/8sm) | 60 minutes | U |
| Lightning | Observed Lightning within 5NM of the Airfield | Observed | EU* |

## Chapter 6

## SEVERE WEATHER ACTION PLAN

**6.1. General.**

6.1.1. The Severe Weather Action Plan (SWAP) outlines procedures to recall 7 OSS/OSW standby personnel and Severe Weather Action Team (SWAT) personnel in the event of severe weather, or any other emergency requiring weather support.

6.1.2. These procedures are in effect 24 hours per day. The 26 OWS is the primary forecasting and weather warning/watch office and has personnel on duty 24 hours per day.

**6.2. Pre-Emptive Actions.** In case of potential severe weather at Dyess, the 7 OSS/OSW and the 26 OWS will combine efforts and provide a forecast. Duty positions and priorities shift to cover SWAP responsibilities through the duration of the weather event.

**6.3. 7 OSS/OSW Responsibilities.** The 7 OSS/OSW performs SWAP responsibilities as defined in AFMAN 15-129V2, AFI 10-229, AFI 10-206, the Dyess IDS, and local weather procedures. More specifically, the 7 OSS/OSW accomplishes the following procedures:

6.3.1. SWAP Activation Guidelines. The on-duty/standby weather forecaster will notify the SWAT leader whenever one or more criteria in Table 6.1. are met. The SWAT leader on duty will discuss the meteorological situation, manning requirements, and the recall (or placement on standby) of additional personnel with the designated forecaster/standby person. If deemed necessary, and the defined criteria exists, the SWAT leader will report to the weather station NLT 30 mins after notification, or as soon as possible.

6.3.1.1. During normal duty hours (0730 to 1630 CT), Monday through Friday, except federal holidays/airfield closure days, the forecaster implements SWAP by notifying the 7 OSS/OSW leadership or SWAT leader whenever one or more conditions in Table 6.1. are met.

6.3.1.2. Outside normal staff duty hours, the forecaster will implement SWAP by notifying the SWAT leader, as indicated on the current duty schedule whenever one or more conditions in Table 6.1. are expected, are occurring, or if they feel that they are too busy to perform all required duties.

6.3.1.3. The SWAT will effectively use the **ORM process** by prioritizing what tasks need to be accomplished immediately to ensure that the most effective decision has been made in helping provide resource protection to Dyess and its assets.

6.3.2. Standby Forecaster Duties. The forecaster will have the standby cell with them at all times. Contacts will be made twice daily to the 26 OWS to discuss severe weather at 06-09L and 18-21L.

6.3.2.1. The 26 OWS will issue all applicable WWAs if the forecaster is not at the weather station.

6.3.2.2. The forecaster must report to the weather station NLT 30 mins after notification whenever a WWA is issued for the criteria in Table 6.1. Once the forecaster is at the station, he/she will maintain normal operations.

6.3.2.3. Efforts will be concentrated on eyes forward resource protection and notification efforts during airfield closure hours.

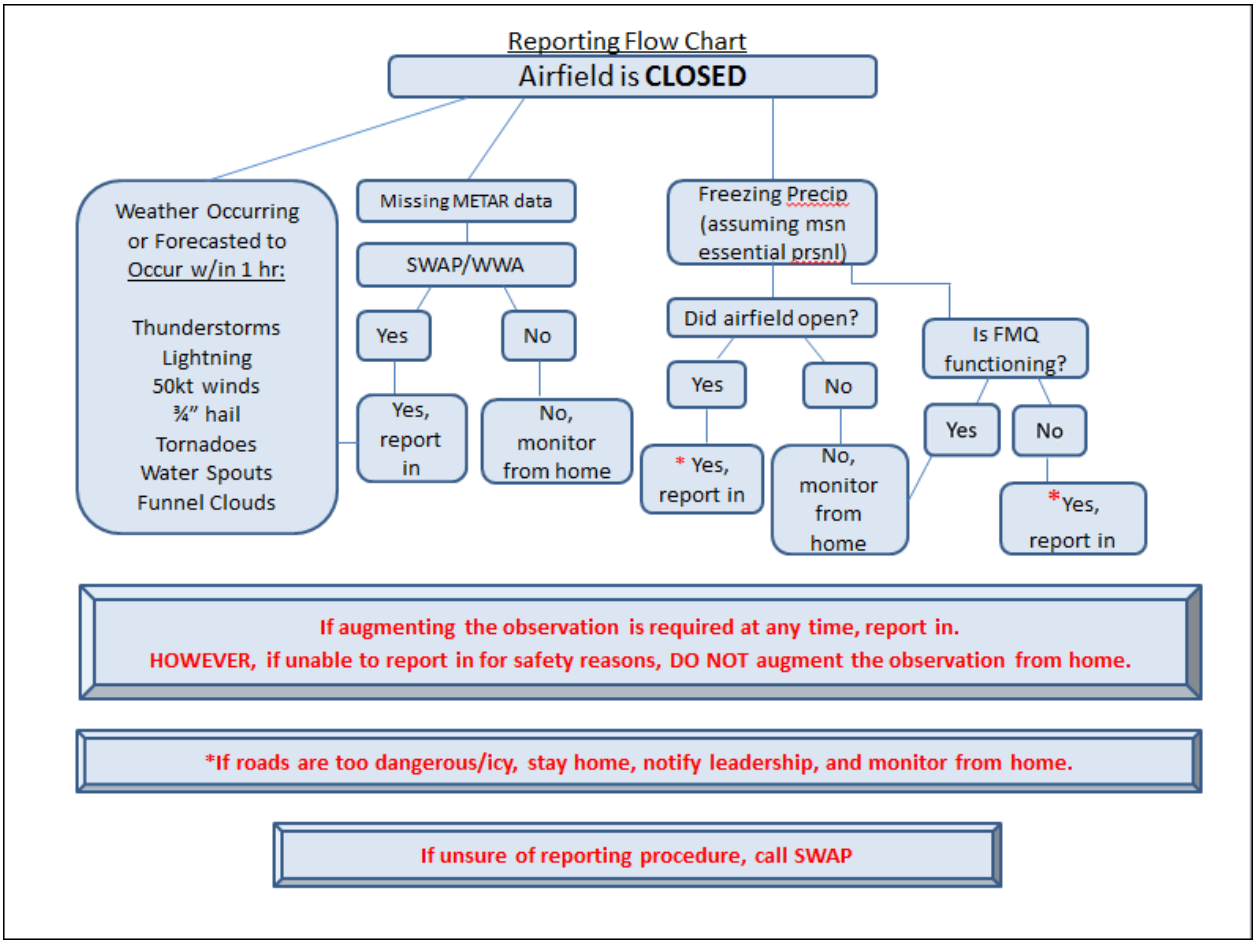
6.3.2.4. If there are active missions the forecaster will enhance MISSIONWATCH and keep the SOF updated on changes IAW duty priorities.

6.3.2.5. The 7 OSS/OSW will remain open and SWAP will remain in effect until the expiration or cancellation of watches and/or warnings listed in Table 6.1.

6.3.2.6. The forecaster will supplement for mandatory elements IAW AFMAN 15-111.

6.3.3. The Dyess command post will contact the stand-by forecaster in the event the airfield opens and it is not previously scheduled. NOTE: The requirement for the standby forecaster to report to the weather station is based on Flowchart 1.1.

**Figure 6.1. (Added) Airfield Closed Reporting Procedure**



6.3.3.1. Inbound Aircraft: Forecasters will arrive one hour prior to aircraft arrival time or when the airfield is open, whichever is earlier.

6.3.3.2. Outbound Aircraft: Forecasters will arrive as early as needed to provide any briefing required and stay until the airfield closes.

6.3.4. The 7 OSS/OSW reviews home phone and cell phone numbers monthly to ensure the most current numbers are available for SWAP.

6.3.5. The standby forecaster will request a TAF be issued at least 3 hours prior to the airfield opening.

**Table 6.1. Dyess AFB Severe Weather**

| **Criteria Requiring Recall of Standby Forecaster** | |
|---|---|
| **Weather Condition** | **Notification of SWAT leader** |
| 1. One of the following Weather Watches/Warnings is issued by 26 OWS: | |
| A. Tornado | When Issued |
| B. SVR TSTM: Damaging Winds ≥ 50kts<br>Hail ≥ 3/4 inch diameter | When Issued |
| C. Mod TSTM: High Winds ≥ 35kts but <50kts<br>Hail ≥ 1/2 inch to < 3/4 inch diameter | When Issued |
| D. Damaging Winds ≥ 50kts | When Issued |
| E. Freezing Precipitation | When Issued |
| F. Heavy Snow ≥ to 2 inches in 12 hours | When Issued |
| G. Heavy Rain ≥ to 2 inches in 12 hours | When Issued |
| 2. One of the following Weather Advisories is issued by the 26 OWS: | |
| A. Thunderstorms Observed within 25 NM<br>** (not moving towards Dyess) If, in the opinion of the forecaster and OWS, the thunderstorms will remain outside of 10NM and not produce moderate or greater conditions, the forecaster is not required to come in. Ex. TS 20NE MOV E<br>**(moving towards Dyess) Forecaster will proceed to weather station | When Issued |
| B. Moderate or greater thunderstorms Observed within 10 NM | When Issued |
| C. Snow and/or sleet with accumulation < 2 inches in 12 hours | When Issued |
| 3. In the event of unforeseen circumstances, such as a communications line failure, a critical equipment outage at either the 26 OWS or the 7 OSS/OSW.<br>**at a minimum open a ticket and log out the equipment | As Required |
| 4. Any other event or situation the duty forecaster or 26 OWS deems necessary | As Required |

**Table 6.2. 7 OSS/OSW SWAP Roles and Key Responsibilitie**

| | |
|---|---|
| **SWAT Leader** | |
| 1. | When first notified report to the station within 30 minutes of notification. |
| 2. | Upon arrival, receive initial forecast discussion from Forecaster. |
| 3. | Ensure duty positions are delegated and members are performing assigned tasks (combine duty positions when necessary).<br>a. Mission Weather Forecaster<br>b. Airfield Services Forecaster |
| 4. | Ensure the following tasks are accomplished on a recurring basis:<br>a. Recall additional personnel if needed<br>b. Adjusts duties as deemed necessary<br>c. Send severe weather email to Dyess leadership. Send severe weather email to Dyess leadership. Time permitting query the 7 BW/CC through the Dyess CP on whether to convene a Kilo Weather Conference prior to issuing or upon issuing a weather Warning for tornadoes, 3/4 inch hail, winds > 50kts, heavy snowfall, or freezing precipitation. In this conference the forecaster explains to the wing staff, group commanders, and other appropriate agencies the weather threat to Dyess AFB.<br>d. Keep personnel focused on assigned tasks.<br>e. Ensure all applicable watches/warnings/advisory are issued and notification has been accomplished.<br>f. Review all forecast products for accuracy and horizontal consistency (i.e., watches/warnings/advisories, TAFs, and MWPs).<br>g. Provide meteorological expertise and guide decision making. |
| 5. | Conduct post-event review and discussion to provide team members with feedback (positive and negative). |
| 6. | Consolidate inputs and coordinate with 26 OWS for OPREP-3 report and provide to Dyess Command post (if required). **Use format in Attach 2** |
| | |
| **Radar Operator** | |
| 1. | Interrogate storms and related phenomena using WSR-88D and, during thunderstorms, lightning detection products. |
| 2. | Keep Duty Forecasters and SWAT leader informed of local severe activity |
| 3. | Monitor RPS list and change as the situation warrants. |
| 4. | During tornado and thunderstorm events, provide the Forecasters with storm positions and movements. |
| 5. | During thunderstorm events, advise the SWAT members when thunderstorms are within 10 nm and 5 nm. |
| 6. | Work with other SWAT members to ensure horizontal consistency. Assist other team members as needed. |
| 7. | Archive data if deemed necessary. |
| 8. | Provide inputs to forecast review and OPREP-3 report as needed. |
| | |
| **Airfield Services Forecaster** | |

| | |
|---|---|
| 1. | Begin mandatory FMQ-19 Supplementing/Back up procedures as needed. |
| 2. | Issue observed Warnings/Advisories. Constantly coordinate with 26 OWS and notify critical agencies on the issuance of forecast Watches/Warnings. |
| 3. | Update the mission weather forecaster and SWAT Leader on latest conditions. |
| 4. | Complete duties using the duty priority list expanding critical eyes-forward role to the 26 OWS. |
| 5. | Work with other SWAT members to ensure horizontal consistency. |
| 6. | Provide inputs to forecast review and OPREP-3 report as needed. |
| | |
| **Mission Weather Forecaster** | |
| 1. | Initiate and maintain an events log as time permits IAW local policy. |
| 2. | Notify/recall SWAT leader identified on duty schedule if not already done. |
| 3. | Advise wing leadership of the situation as requested until the SWAT leader arrives. |
| 4. | Review SWAT leader checklist and begin any duties, as necessary, until the member arrives. |
| 5. | Conduct a concise forecast discussion of the current situation to apprise SWAT leader upon their arrival. |
| 6. | Enhance MISSIONWATCH. Review PIREPs, SIGMETs, and area NWS forecasts products for severe weather reports. If applicable, incorporate into products. |
| 7. | Update MWP as needed. |
| 8. | Work with other SWAT members to ensure horizontal consistency. |
| 9. | Complete duties using the duty priority list. (Perform duty airfield services functions as necessary). |
| 10. | Provide inputs to post-event OPREP-3 report (if required). Archive data for and perform forecast review. |

6.3.6. Post Severe Event Procedures. If severe weather does occur, execute the following procedures as applicable.

6.3.6.1. OPREP-3 BEELINE Reporting procedures. When the following weather occurs and results in damage, the 7 OSS/OSW and 26 OWS collaborate to provide an OPREP-3 report. The OPREP-3 report is based on the following damage criteria. **NOTE**: 7 BW CP has 10 minutes to send a first response. Be prepared to pass observed weather conditions at time of event.

6.3.6.1.1. Weather-related aircraft mishaps.

6.3.6.1.2. Tornadoes.

6.3.6.1.3. Winds 50 knots or greater (to include gusts).

6.3.6.1.4. Hail ¾ inch or larger.

6.3.6.1.5. Lightning strikes.

6.3.6.1.6. Snow storms.

6.3.6.1.7. Aircraft evacuations to one or more bases/posts due to tropical cyclones or flooding.

6.3.6.1.8. Natural disasters such as earthquakes, floods, and volcanic eruptions that result in casualties and/or property damage.

6.3.6.1.9. Weather-related airborne incidents (i.e., lightning strikes or hail damage).

6.3.6.2. OPREP-3 Report Format: The 7 OSS/OSW uses the following template when issuing:

**Table 6.3. OPREP-3 reports to the Dyess Command post and the 26 OWS**

| |
|---|
| **TYPE OF REPORT:** *(i.e., OPREP-3/BEELINE)* |
| **7 OSS/OSW DYESS AFB, TX** |
| **TYPE OF WEATHER OR WEATHER-RELATED EVENT OR INCIDENT:** *(i.e., 75 knot gust, hail damage to inflight aircraft)* |
| **DATE, TIME, AND LOCATION OF EVENT OR INCIDENT:** *(i.e., 24 Nov 2010, 2115Z, IR 178 or 15 miles south Dyess)* |
| **REPORT(S) OF ACTUAL OBSERVED WEATHER OR WEATHER-RELATED EVENT(S) OR INCIDENT(S):** *(i.e., Aircrew reported IFE due to hail damage or ABI reported 1in hail)* |
| **PRELIMINARY ESTIMATES OF CASUALTIES AND/OR PROPERTY DAMAGE (IF AVAILABLE):** *(i.e., Security Forces reported roof missing on commissary)* |
| **SUMMARY OF RELEVANT FORECAST PRODUCTS:** |
| **TEXT OF MWP AND TAF IN EFFECT AT THE TIME OF THE EVENT:** |
| *KDYS MWP 151500….* |
| *KDYS AMD 151817 AMD, etc….* |
| **WEATHER WATCHES AND WARNINGS ISSUED:** |
| *DYESS AFB WEATHER LIGHTING WATCH #06-002* |
| *VALID 20/2000Z (20/1600L) to 20/2300Z (20/1900L)* |
| *Issued at: (time)* |
| *Lead time: (time)* |
| *Desired lead time: (time)* |
| *DYESS AFB WEATHER 50 KNOT WIND WARNING #06-003* |
| *VALID 20/2000Z (20/1600L) to 20/2300Z (20/1900L)* |
| *Issued at: (time)* |
| *Lead time: (time)* |
| *Desired lead time: (time)* |
| **OPERATIONAL STATUS OF METEOROLOGICAL AND COMMUNICATIONS NETWORKS:** *(i.e., Base wide power outage, UPS in use, or all observing equipment 100% operational. WSR-88D was operating at full capacity. JET/PMSV/LAN was 100% operational)* |
| **MISCELLANEOUS REMARKS (IF NECESSARY):** |
| **CONTACT INFOMRATION FOR 7 OSS/OSW DYESS AFB, TX:** |
| 7 OSS/OSW |
| 674 Alert Ave |
| Dyess AFB, TX 79607 |
| DSN: 312-461-2501/2524 |
| Comm: 325-696-2501/2524 |
| 7OSSA3Watdyess.af.mil |

6.3.6.3. The 7 OSS/OSW may document severe weather events, and use them to conduct a SWAP exercise on a semi-annual basis, and further investigation if needed.

6.3.6.4. Commanders assigned responsibility for the conduct or support of an accident investigation will ensure that the following assistance is provided to the president of the investigation board, if needed. Weather officer: Obtain complete weather information for the time and location of the accident.

**6.4. 26 OWS Responsibilities.** The 26 OWS routinely schedules adequate manning resources for each duty shift to respond to severe weather situations within the AOR. OWS Operations Floor leaders continuously assess severe weather threats and shift manning as needed to address additional workload needs for locations.

6.4.1. The 26 OWS will initiate a phone call to the 7 OSS/OSW, or the Dyess command post (DSN 461-1921) when 7 OSS/OSW is closed, and when a 26 OWS issued WWA has not received a successful confirmation using the IWWC system.

6.4.2. If requested the OWS provides data to the Dyess command post (DSN 461-1921) for OPREP-3 reporting purposes IAW AFMAN 10-206.

## Chapter 7

## STAFF WEATHER/CLIMATOLOGY SUPPORT

**7.1. General.** The Staff Weather Element provides services from 0730L-1630L, Monday through Friday, except for federal holidays and when closed due to airfield closure.

**7.2. Crisis Action Team/Emergency Operations Center.** The 7 OSS/OSW presents Crisis Action Team and Emergency Operations Center briefings to the 7 BW/CC and/or wing staff agencies on an as-needed basis. The 7 OSS/OSW will ensure personnel preparing and presenting these briefings have an appropriate line badge to enter the Dyess command post. The briefings contain a minimum of the following information, presented in a power-point format.

7.2.1. Current Satellite Picture (IR/VIS) of the entire CONUS.

7.2.2. Current Radar Imagery.

7.2.3. NOAA's forecast slides depicting today's and tomorrow's weather.

7.2.4. Weather Effects on Operations Slide .

7.2.5. Dyess 5-Day Forecast.

**7.3. Mobility Concept Briefing.** The 7 OSS/OSW provides a briefing at all Mobility Concept Briefings as necessary. As a minimum, the briefings include forecast conditions at Dyess AFB for departure time, deployed area climatology, and forecast conditions for destination arrival time.

**7.4. Instrument Refresher Course (IRC).** A 7 OSS/OSW representative provides a local weather effects briefing to all IRC classes as requested.

**7.5. Climatology Support.**

7.5.1. Monthly climatic data for Dyess AFB is emailed to the 7th Civil Engineer Squadron (CES) and other agencies as requested.

7.5.2. The 7 OSS/OSW coordinates with the Air Force Combat Climatology Center for climatology studies as well as access to and assistance with raw climatology data.

7.5.3. The 7 OSS/OSW can prepare climatology data packages upon advanced request for any 7 BW/317 AG off-station missions.

**7.6. Dyess Tower Air Traffic Control Training/Orientation.** The 7 OSS/OSW provides training and certification for Dyess tower personnel on METAR code, TAF code, and visibility determination. Training/certification is conducted Monday-Friday, between the hours of 0800L-1600L, upon coordination with the 7 OSS/OSW.

**7.7. Pre-Deployment Planning.**

7.7.1. The 7 OSS/OSW obtains weather support through the AOR OWS when deployed to a specific region. The 7 OSS/OSW begins this process as early as possible, preferably no less than 2 weeks in advance.

7.7.2. The Expeditionary Weather Element conducts deployment AOR training prior to deploying in support of 7 BW taskings. Training focuses on seasonal regimes at the

deployment location, climatology, forecast rules of thumb, and how to obtain weather data while deployed.

**7.8. Maintenance and Ops Briefing.**

7.8.1. A daily Maintenance and Operations briefing is conducted in the Wing Conference Room at 0930L. While the 7 OSS/OSW does not usually attend or brief at this meeting, we provide a weather forecast and mission impacts for special event forecasts and severe/winter weather events if requested.

## Chapter 8

## RECIPROCAL SUPPORT

**8.1. General.** The 7 OSS/OSW provides weather support to and receives support from various agencies on Dyess AFB.

**8.2. Support to/from 7 BW Staff.**

8.2.1. The 7 OSS/OSW:

8.2.1.1. Advises the 7 BW/CC and staff on all matters pertaining to weather.

8.2.1.2. Presents weather briefings at requested meetings and/or briefings.

8.2.1.3. Keeps the 7 BW/CC informed of the status of weather phenomena, particularly tropical cyclones, severe weather, winter storms, threatening 7 BW resources.

8.2.1.4. Provides informational e-mails to the 7 BW/CC, 317 AG/CC, GP/CCs, SQ/CCs and 7 OSS/OSA supervisors prior to significant weather events that will impact the base to include winter weather and severe weather.

8.2.2. 7 BW/CCA ensures the 7 OSS/OSW is notified of all scheduled 7 BW/CC meetings where a weather briefing is requested.

8.2.3. 7 BW/CC responsibilities are outlined in AFI 10-229, Chapter 2.

**8.3. Support to/from 7 OSS/OSA.**

8.3.1. Coordinates with 7 OSS/OSW on all changes to DYESSAFBI 11-250, *Airfield Operations and Base Flying Procedure*s.

**8.4. Support to/from 7 OSS/OSAA (AMOPS).**

8.4.1. The 7 OSS/OSW:

8.4.1.1. Notifies 7 OSS/OSAA when changes in weather station operations require an update to the FLIP manuals, IFR Supplement, or other Federal Aviation Administration (FAA) publications.

8.4.1.2. Notifies 7 OSS/OSAA when a weather station evacuation is required.

8.4.1.3. Provides a list of required FLIPs and FAA publications.

8.4.1.4. Provides information regarding any outages on the PMSV.

8.4.1.5. Provides notification of required watch/warning/advisories via the JET system, in person, or backup methods.

8.4.2. 7 OSS/OSAA:

8.4.2.1. Notifies the forecaster of changes in the RSC/RCR.

8.4.2.2. Notifies the forecaster via SCN of all notifications over the primary crash alarm system (PCAS).

8.4.2.3. Provides backup support for transmission of weather warnings/watches and advisories, via the SCN.

8.4.2.3.1. Relays all tornado weather warnings/watches via the SCN.

8.4.2.4. Notifies the 7 OSS/OSW of locally initiated changes to the FLIP affecting landing minimums and coordinate weather updates for the FLIP, IFR supplement, with AFFSA.

8.4.2.5. Assists in securing transportation to the Dyess tower facility when needed for weather personnel in the event the 7 OSS/OSW and 7 OSS/OSAA must evacuate.

8.4.2.6. Notifies the 7 OSS/OSW when evacuation of the operations section is required.

8.4.2.7. Assists with the 7 OSS/OSW in executing building FPCON procedures and preparation for major exercises, and contingencies.

8.4.2.8. Issues a NOTAM for any PMSV outage lasting longer than 1 hour.

**8.5. Support to/from 7 OSS/OSAT (Dyess tower). NOTE:** This section serves as the Cooperative Weather Watch (CWW) agreement that is required by AFMAN 15-111 with ATC.

8.5.1. The 7 OSS/OSW:

8.5.1.1. Provides Dyess AFB observations, terminal aerodrome forecasts and notification of required watch/warning/advisories via the JET system or backup methods.

8.5.1.2. Notifies 7 OSS/OSAT when the PMSV radio is inoperative so they can include an outage announcement on the Automatic Terminal Information Services (ATIS) recording.

8.5.1.3. When augmenting observations, use the Dyess tower values of prevailing or sector visibility as a guide in determining the surface visibility when the view of portions of the horizon is obstructed by buildings, aircraft, etc. and re-evaluate surface prevailing visibility upon initial receipt of a differing tower value and subsequent reportable changes at the Dyess tower level.

8.5.1.4. Provides initial training and certification to Dyess tower controllers to take limited weather and visibility observations and document Initial Limited Weather Observation training on the AF Form 3622, *Air Traffic Control/Weather Certification and Rating Record (LRA)*, IAW AFI13-204V3. In addition, refresher training is provided by the 7 OSS/OSW as necessary ISO the limited observation program.

8.5.1.5. Assists in Dyess Tower visibility marker identification updates.

8.5.1.6. Notifies Dyess tower as soon as possible when conditions warrant the evacuation of the 7 OSS/OSW to the tower facility.

8.5.1.7. Weather forecasters reevaluate the weather conditions whenever a reliable source (i.e., the Dyess tower, pilots, local law enforcement, etc.,) reports weather conditions different from the last disseminated observation (i.e.,, different ceiling height, visibility, present weather). Based on reevaluation of the different weather conditions reported and local policy, weather personnel will:

8.5.1.7.1. Generate a SPECI observation if the different conditions warrant immediate dissemination.

8.5.1.7.2. Include the differing conditions in the next required METAR or SPECI observation if the conditions alone do not warrant immediate dissemination.

8.5.1.8. Send a representative, typically the flight commander or NCOIC, to each ATC and Landing Systems (ATCALS) Facility Review Committee meeting and Airfield Operations Board (AOB) meeting.

8.5.1.9. Provides an updated Entry Access Letter to the Dyess tower facility chief each quarter, or as changes in flight personnel occur.

8.5.1.10. Coordinates at least 24 hours in advance with the 7 OSS/OSA commander prior to conducting practice evacuation exercises in the Dyess tower facility.

8.5.1.11. Participates in an evacuation exercise to the Dyess tower facility at least once a year.

8.5.2. 7 OSS/OSAT:

8.5.2.1. Performs a CWW with the 7 OSS/OSW IAW with AFMAN 15-111 and AFI13-204V3.

8.5.2.1.1. Schedules all Dyess tower personnel for the Dyess tower weather familiarization/visibility observation training with the 7 OSS/OSW NCOIC or training manager.

8.5.2.1.2. Requires certified Dyess tower personnel to make tower prevailing and sector visibility observations when the reported surface prevailing visibility is less than 4 miles.

8.5.2.1.3. Reports changes in Dyess tower prevailing visibility to the local weather unit when tower visibility is less than 4 SM (6000 meters) and is different from the surface prevailing visibility.

8.5.2.1.4. Notifies the 7 OSS/OSW immediately if they see lightning, funnel clouds, or spot a tornado.

8.5.2.1.5. Relays all pertinent information to the 7 OSS/OSW passed on from aircrew to include Pilot Reports (PIREPS) and any occurrence of previously unreported weather conditions that could affect flight safety or be critical to the safety or efficiency of other local operations and resources. ATC/supervisors of flying will relay pilot report information to weather not later than 5 minutes after receipt.

8.5.2.1.6. Notifies the 7 OSS/OSW when necessary to use inactive runway sensors when authorizing aircraft to land using inactive runway.

8.5.2.1.7. Notifies 7 OSS/OSW of any AFAS outages or problems and informs 7 OSS/OSW of back-up procedures for obtaining weather information.

8.5.2.1.8. Provides weather personnel an air traffic indoctrination briefing.

8.5.2.1.9. Conducts a daily PMSV radio check with the 7 OSS/OSW.

8.5.2.1.10. Relays all Dyess watch/warning/advisories to all arriving and departing aircraft via the ATIS.

8.5.2.1.11. Provides a workspace to include a desk, phone, and LAN drop on the 4th floor, Bldg 4300, Rm 401, for 7 OSS/OSW evacuation operations.

8.5.2.1.12. Allows unescorted access to all personnel listed on the most current EAL.

8.5.2.1.13. Provide the 7 OSS/OSW with the current Dyess tower facility access codes and notify the 7 OSS/OSW of any changes to the access codes.

8.5.2.1.14. Allows the 7 OSS/OSW to practice evacuation exercises at least once a year.

**8.6. Support to/from Supervisor of Flying (SOF).**

8.6.1. The 7 OSS/OSW:

8.6.1.1. Briefs the SOF, IAW local procedures, approximately one hour prior to the first scheduled B-1 takeoff, or two hours prior to first B-1 takeoff during periods of inclement weather (IAW AFI 11-418_DYESSAFBSUP, Paragraph 9.3.1.1.1.). Subsequent SOF's receive a briefing as they come on duty.

8.6.1.2. Provides the SOF a copy of the MWP.

8.6.1.3. Notifies the SOF of weather that will impact low-level routes and recommend route closure.

8.6.1.4. Requests PIREPS from the SOF and ask them to solicit updated reports from aircraft with which they have contact.

8.6.1.5. Notify the SOF (via the Dyess tower) on the issuance of any watches, warnings, or advisories.

8.6.1.6. Notify the SOF of any changing weather conditions deemed to be significant to flying operations.

8.6.1.7. Notifies the command post, 9 BS and 28 BS duty desks, and 7 OSS/OSR when routes have been closed/opened.

8.6.1.8. Presents upcoming seasonal weather challenges at quarterly SOF meetings.

8.6.2. The SOF:

8.6.2.1. Make the determination to close a low-level route based on weather information provided by the 7 OSS/OSW. The SOF will also determine when the route will re-open based on weather conditions provided by the 7 OSS/OSW.

**8.7. Support to/from 7 OSS Current Operations.**

8.7.1. The 7 OSS/OSW:

8.7.1.1. Submits inputs to 7 OSS Current Operations on all 7 BW plans as required.

8.7.1.2. Provides climatological information and long range forecasts as coordinated.

8.7.2. 7 OSS Current Operations:

8.7.2.1. Coordinates environmental inputs to all applicable plans with the 7 OSS/OSW.

8.7.2.2. Provides information on software updates to EPEX and assist with EPEX problems.

**8.8. Support to/from Dyess Consolidated Command Post.**

8.8.1. The 7 OSS/OSW:

8.8.1.1. Provides Dyess AFB observations, terminal aerodrome forecasts and notification of required watch/warning/advisories via the JET system or backup methods.

8.8.1.2. Provides additional information as requested, to include more detailed information on severe weather forecasts to include the speed and direction of movement of forecast tornadic activity that may impact Dyess.

8.8.1.3. Provides local weather operations orientation to Dyess consolidated command post controllers.

8.8.1.4. Provides information pertaining to severe weather events for use in OPREP-3 reports.

8.8.1.5. Provides the Dyess consolidated command post with a current standby forecaster cell phone number.

8.8.1.6. Informs the Dyess consolidated command post when a low level route has been closed/opened by the SOF due to weather.

8.8.2. Dyess Consolidated Command Post:

8.8.2.1. Coordinates notification of weather watch/warning and advisory information with base agencies not notified by the 26 OWS, 7 OSS/OSW, or another source.

8.8.2.2. Further disseminates weather watch/warning and advisories to base agencies and personnel via the AtHoc notification system. The Dyess consolidated command post is notified by the 7 OSS/OSW of these conditions and is responsible for disseminating them down to other base agencies as required.

8.8.2.3. Relays any PIREPs or reports of hazardous weather to the 7 OSS/OSW over the hotline.

8.8.2.4. When the 7 OSS/OSW is closed, and the airfield needs reopening for an unscheduled aircraft departure or landing, the Dyess consolidated command post immediately notifies the standby forecaster. **NOTE:** The forecaster need to open NLT 60 minutes prior to a scheduled departure or landing, or two hours in case inclement weather for the SOF and/or Top 3 (IAW AFI 11-418_DYESSAFBSUP, Paragraph 9.3.1.1.1.

8.8.2.5. When the 7 OSS/OSW is closed, notifies the standby forecaster at (325) 370-7841 when any weather watch, warning or advisory is issued by the 26 OWS for Dyess AFB.

8.8.2.6. Notifies the 7 OSS/OSW of Crisis Action Team activation and/or changes in assembly times.

8.8.2.7. Notifies the 7 OSS/OSW of all low-level route exit reports sent in by aircrew.

8.8.2.8. Contacts aircrews to relay weather information updates as provided by the 26 OWS and the 7 OSS/OSW.

8.8.2.9. Activates the siren over Giant Voice in the event of a tornado warning for Dyess AFB.

8.8.2.10. Transmits all OPREP-3 reports IAW AFI 10-206.

8.8.2.11. When there is a change in heat categories, notifies 7 MOC and 317 MOC, group commanders, and Fitness Center.

**8.9. The 7 BW Maintenance Operations Center (MOC) (7 MOS/MXOOM).**

8.9.1. Coordinates notification of weather watch/warning and advisory information with the Dyess command post.

8.9.2. Further disseminates weather information to maintenance personnel, as required.

8.9.3. When there is a change in heat categories, broadcasts all appropriate heat stress conditions to flightline production supervisors via the land mobile radios (LMR).

**8.10. Support to/from 7 BW/SE.**

8.10.1. The 7 OSS/OSW:

8.10.1.1. Upon notification of an aircraft mishap or incident, collects all weather data necessary to investigate the mishap, even if weather is not considered a factor in the incident.

8.10.1.2. Provides weather information to the 7 BW/SE as required for aircraft and ground mishap investigations.

8.10.1.3. Provides weather briefings at quarterly flying safety meetings as coordinated. These briefings are typically in PowerPoint format and include upcoming seasonal hazards and updates on weather station operations.

8.10.2. 7 BW/SE:

8.10.2.1. Notifies the 7 OSS/OSW of any aircraft mishaps or incidents when weather assistance is required.

8.10.2.2. Notifies the 7 OSS/OSW of any ground mishaps or damage on Dyess AFB caused by weather.

8.10.2.3. Requests and coordinates weather briefings at quarterly flying safety meetings at least one week in advance.

**8.11. Support to/from 7 BW/PA.**

8.11.1. The 7 OSS/OSW:

8.11.1.1. Provides 7 BW/PA, climatological and other weather information as coordinated.

8.11.1.2. Provides 7 BW/PA seasonal articles regarding weather affecting hazards here at Dyess. The flight commander or the wing weather officer provides this information.

8.11.2. 7 BW/PA:

8.11.2.1. Provides 7 OSS/OSW a list of the 7 BW/PA 24-hour points of contact, updated monthly.

8.11.2.2. Coordinates with the 7 OSS/OSW on weather related stories for the base paper.

**8.12. Support to 7 OG/CC.**

8.12.1. The 7 OSS/OSW:

8.12.1.1. Is responsible for all matters pertaining to weather support to the operations group and for keeping the 7 OG/CC (or designated representative) informed of all weather related conditions which pose a threat to Dyess AFB and/or to 7 BW resources deployed to other locations.

8.12.1.2. Provides 7 OG/CC with climatological information on request.

**8.13. Support to/from 317 AG (39 AS, 40 AS, AMC MOC).**

8.13.1. The 317 AG will contact the 618 AOC for weather support on all TACC tasked missions.

8.13.1.1. DELETED

8.13.1.2. DELETED

8.13.1.3. DELETED

8.13.1.4. DELETED

8.13.1.5. DELETED

8.13.1.6. DELETED

8.13.1.7. DELETED

8.13.1.8. DELETED

8.13.1.9. DELETED

8.13.2. For non TACC tasked missions the 7 OSS/OSW:

8.13.2.1. Provides a daily weather mission execution forecast.

8.13.2.2. Provides flight weather briefings on a DD Form 175-1/ DD Form 181 out of Dyess AFB and going to another station (i.e. Little Rock).

8.13.2.3. Provides planning weather parameters to aircrews via the weather webpage.

8.13.2.4. Provides a formal briefer for specific missions if requested by the mission commander, provided advanced coordination.

8.13.2.5. Provides or arranges for weather support during off-station operations. The 7 OSS/OSW requires at least 48 hours advanced notice to arrange such support.

8.13.2.6. Provides climate data to mission commanders for mission planning.

8.13.2.7. Provides step briefings over the phone.

8.13.3. The 7 OSS/OSW:

8.13.3.1. Provides weather watch/warning and advisories, observations and forecasts IAW with this instruction.

8.13.3.2. Continuously refines its MWP and weather products to meet aircraft sensitivities and the mission profile, and annually reviews the defined aircraft weather limitations and verify them with each squadron's operations officers.

8.13.3.3. Provide weather support, on a case by case basis, if the 618 AOC is unable to accommodate the 317 AG.

8.13.4. 39 AS/40 AS:

8.13.4.1. Ensures the mission commander or designated representative contacts the 7 OSS/OSW prior to departing on all non TACC tasked mission.

**8.14. Support to/from 9 BS, 28 BS, 337 TES, and 77 WPS.**

8.14.1. The 7 OSS/OSW:

8.14.1.1. Provides weather warning/watch and advisories, observations and forecasts IAW with this instruction.

8.14.1.2. Provides a daily weather mission execution forecast.

8.14.1.3. Provides flight weather briefings on a DD Form DD 175-1 for all channel missions originating out of Dyess AFB and going to another station (i.e., Fairfield England).

8.14.1.4. Provides planning weather MWP to aircrews via the weather webpage.

8.14.1.5. Provides a formal briefer for specific missions if requested by the mission commander, provided advanced coordination.

8.14.1.6. Provides or arrange for weather support during off-station operations.

8.14.1.7. Provides climate data to mission commanders for mission planning.

8.14.1.8. When requested or as manning allows, provides a briefer for morning planning briefings at the 9 BS/28 BS.

8.14.1.9. Provides step briefings over the phone.

8.14.1.10. Will develop internal processes focused on continuous improvement of the MWPP based on customer feedback.

8.14.1.10.1. Continuously refines its MWP and weather products to meet aircraft sensitivities and the mission profile, and annually reviews the defined aircraft weather limitations and verify them with each squadron's operations officers.

8.14.1.11. Provides TAWs data for specific targets as requested.

8.14.2. 9 BS, 28 BS, 337 TES, and 77 WPS:

8.14.2.1. Ensures the mission commander or designated representative contacts the 7 OSS/OSW prior to departing on a mission.

**8.15. Weather Support for Off-Station Missions (39 AS, 40 AS, 9 BS, 28 BS, 337 TES, and 77 WPS).**

8.15.1. The 7 OSS/OSW is the primary provider of weather information for missions departing from Dyess AFB. The aircraft commander coordinates with the 7 OSS/OSW in

advance for the appropriate weather support and climate data for mission planning purposes. The 7 OSS/OSW provides direct support or arranges for support from another source based on the circumstances of the mission. The 39/40 AS missions flight planned/tracked by TACC receive weather support through TACC.

8.15.2. It is the responsibility of the mission commander to coordinate the weather support request with sufficient advance notice ($\geq$ 2 hrs) before departing Dyess AFB.

8.15.3. Off station missions without sufficient advanced notice will be treated as transient aircraft for duty priority purposes. Typical missions of this nature are Joint Air Operations/Army Airborne Training (JA/AAT) for the 39 AS and 40 AS (C-130 ops and AMC), or long range B-1 missions overseas for air shows or other training missions.

8.15.4. Specific actions (provide or arrange for):

8.15.4.1. The 7 OSS/OSW will provide mission weather products for 7 BW/317 AG staging from another location by:

8.15.4.1.1. Deploying with the unit.

8.15.4.1.2. Arranging for the unit to reach back to our main operating location.

8.15.4.2. Alternatively, if direct support is not provided, the 7 OSS/OSW will:

8.15.4.2.1. Request assistance from the OWS servicing the transient or staged operating location by entering mission data into the servicing OWS' JET Mission Management. Include contact information and briefing number assigned by the JET Mission Management to the aircrew by logging it on the execution forecast forms.

8.15.4.2.2. Request the assistance of the weather flight at the staged location

8.15.4.3. If follow-on mission data is not known at execution from home station, provide the appropriate OWS web site or telephone information to the departing aircrew (i.e., off-station cross country training missions staging from another airfield: base weather technicians provide flight briefing cell contact numbers for the OWS servicing the staged airfield).

**8.16. PIREP and Debriefing Support from 7 BW and 317 AG Aircrews.** Time and mission permitting, aircrews provide PIREPs of any encounters with flight hazards or significant weather elements relaying them through PMSV, the Dyess tower, Dyess consolidated command post, or HF phone patch.

8.16.1. Aircrews relay the location, distance, time, flight level and type of aircraft as mandatory items for a pirep.

8.16.2. The 7 OSS/OSW provides an electronic MWP debrief form via the 7 OSS/OSW weather webpage. When aircrews fill out the electronic feedback form, it automatically emails to the 7 OSS/OSW mailbox.

**8.17. Support to/from 7 CS.**

8.17.1. The 7 OSS/OSW:

8.17.1.1. Reports weather equipment and/or communications outages immediately to BNCC help desk/job control and determines mission impact.

8.17.1.2. Provides an impact statement for all SIGNIFICANT outages.

8.17.1.3. Reports equipment and/or circuits as "in service" once fully operational.

8.17.1.4. Approves all scheduled and unscheduled maintenance downtime of weather equipment and circuits, based on the meteorological and support situation at the time.

8.17.1.5. Provides orientation to maintenance personnel on 7 OSS/OSW operations and capabilities if requested

8.17.2. 7 CS:

8.17.2.1. Repairs and maintains meteorological equipment and JET server at Dyess AFB. The 7 OSS/OSW reports all equipment outages as either Mission Impact "MINIMAL" or "SIGNIFICANT." Mission impact determination is the responsibility of the 7 OSS/OSW and is outlined in **Attachment 2.**

8.17.2.1.1. Significant: An outage, impairment, or disruption of equipment imposes an operational limitation on the units supported and/or no backup capability exists. 7 CS responds immediately to a significant outage.

8.17.2.1.2. Minimal: An outage impairment or disruption of equipment, although important, imposes little operational limitation and/or a backup capability exists. 7 CS responds to a minimal outage during duty hours only.

8.17.2.2. Coordinates with 7 OSS/OSW prior to taking equipment or circuits off line for maintenance or training.

8.17.2.3. Provides job control numbers when opening and closing tickets with the 7 OSS/OSW. Coordination will be done prior to “closing” a ticket.

8.17.2.4. Provides a summary of fix actions or estimated completion date for outages.

**8.18. Support to 7 CES Snow Operations.** IAW 7 BW Snow and Ice Control Plan, the 7 OSS/OSW ensures the timely and adequate dissemination of winter weather information. The 7 OSS/OSW issues weather advisories, watches or warnings for significant winter weather phenomena, which may include freezing rain, or heavy snow.

8.18.1. The 7 OSS/OSW:

8.18.1.1. Notifies the Dyess consolidated command post and 7 OSS/OSA supervisors of any potential snowfall or ice event.

8.18.1.2. Notifies 7 CES customer service at 696-4154/3638 if the forecast calls for snow and/or ice conditions and includes the following information with the notification:

8.18.1.2.1. The current wind direction and speed.

8.18.1.2.2. The forecast wind direction and speed.

8.18.1.2.3. The forecast temperature and wind chill during the period of precipitation.

8.18.1.2.4. The forecast accumulation and duration of snowfall and or ice event.

8.18.1.3. Notifies 7 CES customer service at 696-4154/3638 of significant changes to the forecast and/or other information listed above.

8.18.1.4. Provides seasonal outlook/climatology for winter weather at the annual snow and ice meeting. This will include snowfall climatology for Dyess and information on storm tracks that produce the worst winter weather conditions at Dyess.

**8.19. Support to/from 7MDG.** Regardless of the forecast, the 7 OSS/OSW will immediately notify 7 MDG/SGPB when the outside temperature reaches 84 degrees Fahrenheit.

8.19.1. DELETED

8.19.2. DELETED

**8.20. Support to/from 26 OWS.** The support to and from the 26 OWS is documented in the Dyess Installation Data Sheet (IDS). The IDS will be reviewed annually by 7 OSS/OSW for accuracy and changes will be sent to the 26 OWS for approval/publication.

**8.21. Support to/from National Airborne Operations Center (NAOC).**

8.21.1. The 7 OSS/OSW:

8.21.1.1. Provides or arranges for environmental data for the aircrew, as requested, (i.e., general weather briefings, flight planning information and flight weather briefings).

8.21.1.2. Disseminates information to the NAOC watch officer when any WWA is issued, extended, upgraded, downgraded, or canceled.

8.21.1.3. Whenever the klaxon sounds, or when an alert notification is received from the Dyess Command Post, the forecaster disseminates an alert weather observation over JET within 30 seconds.

**8.22. Support to Air Force One.**

8.22.1. The 7 OSS/OSW:

8.22.1.1. Takes and disseminates a special observation 10 minutes prior to the arrival and departure of Air Force One.

8.22.1.2. Provides the requested weather support. Coordinates with Andrews AFB (DSN 858-5810/2629) prior to support if time is available. If not, coordinates with them after the support is provided.

**8.23. Support to the 489th Bomb Group**

8.23.1. The 7 OSS/OSW provides the same mission weather support IAW this document given to the active B-1 units during normal airfield operating hours.

JASON R. COMBS, Col, USAF
Commander, 7th Operations Group

**Attachment 1**

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

***References***

DoD Flight Information Publication (FLIP)

AFI 10-206, Operational Reporting, 6 Sept 2011

AFI 10-206 ACC SUP, Operational Reporting, 17 Dec 2012

AFI 10-229, Responding to Severe Weather Events, 15 Oct 2003

AFI 11-2C-130V3, C-130J Operations Procedures, 08 Dec 2009

AMCI 15-101, Weather Operations and Support, 27 Oct 2010

AFI 11-2B-1V3, B-1 Operations Procedures, 07 Jan2011

AFI 11-2B-1V3 Dyess AFB Addendum A, 7 July 2011

AFI 11-202V3, General Flight Rules, 22 Oct 2010

AFI 11-202V3 ACC SUP, General Flight Rules, 28 Nov 2012

AFMAN 15-111, Surface Weather Observations, 27 Feb 2013

AFI 15-114, Functional Resource and Weather Technical Performance Evaluation, 7 Dec 2001

AFMAN 15-124, Meteorological Codes, 28 Feb 2013

AFI 15-128, Air Force Weather Roles and Responsibilities, 7 Feb 2011

AFI 15-128 ACC SUP, Air Force Weather Roles and Responsibilities, 17 Dec 2012

AFMAN 15-129V1, Air and Space Weather Operations – Characterization, 6 Dec 2011

AFMAN 15-129V2, Air and Space Weather Operations – Exploitation, 7 Dec 2011

AFMAN 15-129V2 ACC SUP, Air and Space Weather Operations – Exploitation, 6 Aug 2013

DAFBI 11-250, Airfield Operations and Dyess Flying Procedures, 29 June 2013

***Prescribed Forms***

AF Form 9, *Local Dissemination Log.*

AF Form 3622, *Air Traffic Control/Weather Certification and Rating Record (LRA)*

AF Form 3803, *Surface Weather Observations (METAR/SPECI*

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

DD 175-1's, *Flight Weather Briefing*

***Terms:***

**Airfield Automation System (AFAS)**—--Air Traffic Control (ATC) consolidated computer system. Incorporates ATC requirements on one system, including weather information.

**Air Force Weather Agency (AFWA)**——-A Field Operating Agency headquartered at Offutt AFB, NE. AFWA provides strategic level meteorological support to DoD customers.

**Airfield Services**——-7 OSS/OSW personnel serving as the "Eyes Forward" for the 26 OWS and the primary POC for the collaborative forecast effort to include resource protection for the installation. The forecaster is responsible for taking surface weather observations, issuing observed weather Warnings and Advisories, and issuing the first MWP of the day for Dyess AFB.

**Altimeter Setting**——-The value of atmospheric pressure to which the scale of a pressure altimeter is set. The altimeter setting is included as part of an aviation weather observation.

**Amendment**——-A revised Terminal Aerodrome Forecast (TAF). TAFs are scheduled forecasts issued every eight hours. Amendments are unscheduled and issued between TAFs whenever the current TAF no longer represents existing weather conditions and those conditions are expected to last at least one hour.

**Amendment Criteria**——-Significant operational weather thresholds (ceiling height, visibility, wind speed, etc.) used to determine whether a TAF is amended.

**Basic Weather Watch (BWW)**——-When an observer cannot continuously monitor the weather due to other duties, location of the weather station, and/or obstruction of view of the runway complex, a BWW is conducted. In addition to the hourly observations, the observer rechecks conditions at intervals not to exceed 20 minutes since the last observation when any of the following conditions are observed occurring or are forecast to occur within one hour; ceiling 1,500 feet or less, visibility 3 miles or less, precipitation (any form), thunderstorms, and/or fog.

**Broken (BKN)**——-Descriptive of sky cover of 5/8 to 7/8 of clouds or obscuring phenomena. The description "BKN" constitutes a ceiling.

**Ceiling**——-The height (in feet above airport elevation) of the bases of the lowest layer of clouds or obscuring phenomena when the clouds or phenomena are reported as broken or overcast.

**Cell**——-A convective cloud element.

**Clear (SKC)**——-An adjective used to describe a cloud-free sky.

**Climatology**——-The scientific study of the statistical collective of a specified area's weather conditions over an extended interval of time (usually at least several decades).

**Continuous Weather Watch (CWW)**——-When an observer monitors the weather conditions without interruption and performs no other duties.

**Cooperative Weather Watch (CWW)**——-The concept where the duty observer is assisted in monitoring weather conditions by other properly trained personnel, such as ATC personnel.

**Crosswind**——-Wind vector component perpendicular to the course of an aircraft heading down the runway. The drift crosswinds cause is critical to aviation and is especially dangerous during landing and takeoff.

**Desired Lead Time (DLT)**——-The goal for the amount of time in advance of onset of a particular weather phenomenon. It is set by a combination of customer requirements and meteorological limitations.

**High Winds**——-Wind speeds of 50 kts or greater.

**Dew Point**—--The temperature to which air must cool in order for condensation to occur.

**Downwind Direction**—--The compass direction the wind is blowing toward; the opposite of wind direction.

**False Alarm**—--The issuance of an Advisory/Watch/Warning for which the hazardous weather never actually occurred.

**False Alarm Rate**—--The number of false alarms divided by the total number of Advisories/Watches/Warnings issued, expressed as a percentage.

**Few**—--Descriptive of sky cover of 1/8 to 2/8 of clouds or obscuring phenomena. The description "FEW" does not constitute a ceiling.

**Flight Weather Briefing**—--A presentation of the observed and forecast weather conditions given by a forecaster to an aircrew member prior to takeoff. The briefing includes expected conditions for takeoff, enroute, destination and alternate weather observations and forecasts.

**Freezing Precipitation**—--Any form of liquid precipitation that freezes upon contact with the ground or exposed objects.

**Funnel Cloud**—--A cloud column or inverted cloud cone pendant from a convective cell. If it reaches the earth's surface, it is then called a tornado.

**Gust**—--Maximum wind speed observed during the 10-minute observational period with variation of 10 kts or more between peaks and lulls.

**Gust Spread**—--The difference in wind speed between peak and lull.

**Hail**—--Precipitation in the form of balls or irregular lumps of ice produced by a thunderstorm.

**Heat Stress**—--Based on ambient temperature only. A condition defined by excessive values of the outdoor ambient temperature. The heat stress indicator is calculated from the dry-bulb temperatures and is measured on the Dyess AFB flightline.

**Heavy Rain**—--An unusually high rate of rainfall over a specified duration. For Dyess AFB, this is defined as two or more inches within a twelve period.

**Heavy Snow**—--An unusually large amount of snowfall. At Dyess AFB, this is defined as the accumulation of two or more inches within a twelve-hour period.

**Humidity**—--The water vapor content of the air.

**Icing**—--Aircraft icing. The accumulation of ice on the exposed surface of aircraft when flown through super cooled water drops (cloud or precipitation). The hazardous aspects of icing are multifold, including increased weight, distorted airfoil shape, inhibited use of control surfaces, unbalanced propeller rotor load, restricted air intakes on jet aircraft and others. Icing is characterized as trace, light, moderate, or severe depending upon its intensity.

**Isolated**—--Term used to describe the occurrence of a weather phenomenon when the phenomenon is or is forecasted to affect only a small percentage (1-2%) of a given area.

**Joint Environmental Tool Kit (JET)**—-- A weather computer system linked to the base local area network (LAN), and is the primary hardware tool in which the USAF weather communications network is linked.

**Knot**—--The unit of speed in the nautical system: one nautical mile per hour is equal to approximately 1.15 statute miles per hour.

**Lead Time**—--The time elapsed between the local dissemination of an Advisory/Watch/Warning and the actual time of occurrence of the hazardous weather condition.

**Light**—--Term used in describing a variety of weather phenomena when they are considered low intensity.

**Local Dissemination**—--The communication of weather service products (Forecasts, PIREPs, Advisories, Watches, Warnings, etc.) from the 7 OSS/OSW to the primary operational information centers at Dyess AFB.

**Local Observation**—--Official current weather information designed to report conditions significant only to Dyess AFB airfield operations.

**Long line Dissemination**—--The communication of weather service products from the 7 OSS/OSW into the Weather Product Management and Distribution System (WPMDS).

**Low-Level Wind Shear (LLWS)**—--Significant variations of wind speed and/or direction, below 2,000 feet above the ground near an aerodrome; this poses a high threat to aircraft taking off and landing.

**Magnetic Wind Direction**—--The direction, with respect to magnetic north, from which the wind is blowing; it is distinguished from true wind direction.

**METAR**—--Standard world meteorological organization code for aviation weather observations.

**METWATCH**—--Meteorological Watch. The monitoring of observed or forecast weather conditions combined with communication to interested units and agencies when pre-established weather conditions occur, or are expected to occur, which would pose a hazard or affect their operations. METWATCH is made up of surface and radar observations, terminal aerodrome forecasts, MWPs, satellite imagery, SIGMETs, PIREPs and Weather Warnings/Watches and Advisories.

**Mission Weather Product (MWP)**—--This is the cornerstone of the 7 OSS/OSW and is the forecast applied to effect a decision regarding the commitment of military forces. The 7 OSS/OSW posts a daily MWP to the weather webpage. Flight weather briefings are MWPs.

**MISSIONWATCH**—--Mission Watch. The monitoring of observed or forecast weather conditions specific to a particular mission combined with communication to interested units and agencies when pre-established weather conditions occur, or are expected to occur, which would pose a hazard or affect their operations.

**Mission Weather**—--7 OSS/OSW personnel provide MWPs for the operational decision cycle of the wing along with sortie planning, generation and execution. The forecaster also provides PMSV support for all aircrews.

**Moderate**—--Term used in describing a variety of weather phenomena when they are considered significant intensity but below “severe” levels.

**Nautical Mile (NM)**—--The distance unit in the nautical system. It is approximately 1.15 statute miles.

**Obscuration**—--The designation for the sky cover when the sky is completely hidden by surface-based obscuring phenomena, such as haze or fog. It is also called obscured sky cover. See also "Partial Obscuration."

**Obstruction to Vision**—--A class of atmospheric phenomena (distinguished from "weather"), which may reduce horizontal visibility at the earth's surface (such as fog, blowing snow, sand, dust, ice fog, haze, smoke, etc.).

**Overcast (OVC)**—--Descriptive of a sky cover of 8/8 when at least one-eighth of this amount is due to clouds or obscuring phenomena aloft; when the total sky cover is not due entirely to surface-based obscuring phenomena. An overcast sky always constitutes a ceiling.

**Operational Weather Squadron (OWS)**—--A centralized weather facility, or weather hub, with primary forecast, resource protection, meteorological watch and transient aircrew briefing responsibilities for its particular AOR.

**Pilot Report (PIREP)**—--A report of in-flight weather by an aircraft pilot or crewmember. A complete pilot report includes the following; location of weather phenomena, time of observation, description of phenomena, altitude of phenomena, wind, temperature, present location (if reporting from the air) and aircraft type.

**Pilot to Metro Service (PMSV)**—--Communications system consisting of telephone and/or high frequency radio communication links used by airborne aircrews and weather organizations to exchange weather information.

**Precipitation**—--Any form of water particles falling from the atmosphere and reach the ground.

**Prevailing Visibility**—--The greatest horizontal visibility equaled or surpassed throughout half of the horizon circle. If conditions are rapidly changing, it is the average visibility during the period of observation. The value is included on a surface weather observation. If the value is less than seven miles, weather or an obstruction to vision is reported.

**Relative Humidity**—--A representation of the water vapor content of the air based on the air temperature and the dew point temperature.

**Runway Visual Range (RVR)**—--The maximum distance along the runway at which the runway lights are visible to a pilot on takeoff or after touchdown. RVR is normally measured by a Transmissometer installed near the end of the runway. The RVR is included in local surface weather observations when visibility is one mile or less.

**Scattered (SCT)**—--Descriptive of sky cover of 3/8 to 4/8 of clouds or obscuring phenomena. The description "SCT" does not constitute a ceiling.

**Sector Visibility**—--A horizontal visibility throughout less than half of the horizon circle, which significantly differs from the prevailing visibility. It is appended as a remark at the end of a surface weather observation at the discretion of the person taking the observation.

**Severe**—--Term used to describe a variety of weather phenomena when they are considered high intensity, posing a significant threat to life, property, or flying operations.

**SIGMET**—--Significant Meteorological Occurrence. A notification of weather conditions which pose a threat to flight safety.

**Sky Condition**—--The amount of sky hidden by clouds or obscuring phenomena.

**Special Observation**—--An unscheduled weather observation taken due to changing weather conditions meeting predetermined criteria.

**Statute Mile (SM)**—--A unit of distance equal to 1,760 yards or 5,280 feet.

***Terminal----The area within a five NM radius from the center of an aerodrome.***

**Terminal Aerodrome Forecast (TAF)**—--A 24-hour aviation weather forecast for a specific terminal.

**Thunderstorm**—--A convective cell accompanied by lightning and thunder. At the surface, thunderstorms may produce strong wind gusts, heavy rain, lightning strikes and sometimes hail and/or tornadoes. For aircraft in flight, thunderstorms always imply the hazards of severe icing, severe turbulence, heavy precipitation and possible hail. Low-level wind shear poses a significant hazard to pilots when thunderstorms are in the vicinity of the terminal.

**Tornado**—--Sometimes called "cyclone" or "twister." A violent rotating column or pendant of air from a thunderstorm. On a local scale, it is the most destructive of all atmospheric phenomena. Its vortex, commonly several hundreds of yards in diameter, whirls with wind speeds estimated at 100 to more than 300 miles per hour.

**Tropical Cyclone**—--The general term for a low-pressure system originating over the tropical oceans. At maturity, the tropical cyclone is one of the most intense and feared storms in the world. More commonly known as a Hurricane or Typhoon.

**True Wind Direction**—--The direction, with respect to true north, from which the wind is blowing. It is distinguished from magnetic wind direction. In all standard upper-air and surface weather observations, the true wind direction is reported.

**Turbulence**—--Erratic fluctuations in aircraft, altitude and/or attitude, caused by rapid changes in wind speeds and direction. Turbulence is characterized as light, moderate, severe, or extreme, depending upon its intensity.

**Valid Time**—--The time period defined in an Advisory, Watch, or Warning during which the area or terminal is vulnerable to a specified weather hazard.

**Vicinity**—--The area between 5 and 10 SM from the point of observation.

**Visibility**—--The distance in a given direction at which it is just possible to see and identify an object with the unaided eye (a) in the daytime, a prominent dark object against the sky at the horizon, and (b) at night, a known, preferably unfocused, moderately intense light source.

**Waterspout**—--A tornado over water.

**Weather**—--(1) The state of the atmosphere; mainly with respect to the effects upon life and human activities. As distinguished from climate, weather consists of the short-term (minutes to months) variations in the atmosphere. (2) In weather observations, any atmospheric phenomena other than "obstructions to vision" significant in the description of atmospheric conditions (especially regarding visibility) at the time of observation (essentially, all forms of precipitation, tornadoes, waterspouts and thunderstorms).

**Weather Advisory (WA)**—--A special notice to a supported agency for an established weather condition, which may affect the agency's operations, is observed or forecast to occur.

**Weather Forecast**—--A prediction of the state of the atmosphere with specific reference to one or more associated weather elements (see "Terminal Aerodrome Forecast").

**Weather Observation**—--(1) The process of viewing and recording various aspects of the current atmospheric conditions from the surface of the earth. (2) A coded, detailed set of weather data designed to thoroughly describe the atmospheric conditions as viewed from the surface, at a particular instant in time.

**Weather Warning (WW)**—--A special advanced notice provided to supported agencies when an established weather condition of such intensity to pose a hazard to life or property occurs or is forecast to occur, for which the supported agencies must take protective action.

**Weather Watch (WWtch)**—--A weather watch is a special notice provided to supported customers alerting them of a potential for weather conditions of such intensity as to pose a hazard to life or property for which the customer must take protective action.

**Wind Chill Temperature**—--Also called "wind-chill factor" and "wind-chill index." A quantitative approximation of the cooling effect of any combination of temperature and wind. Essentially, this approximation is intended to quantify how much colder blowing air at a given temperature feels than calm air at the same given temperature.

**Wind Direction**—--The direction from which the wind is blowing. It is the opposite of downwind direction.

**Wind Speed**—--The speed at which the wind is blowing. Commonly differentiated into steady or mean speed and gust speed.

**Zulu Time (Z)**—--Greenwich Mean Time (GMT) or Coordinated Universal Time (UTC); usually used for times associated with weather data.

**Attachment 2**

**EQUIPMENT OUTAGE IMPACTS**

**Table A2.1. Base Weather Equipment Outage Impact Chart**

| Outage | Scenario | Impact Severity | Mission Impact | Maintainer |
|---|---|---|---|---|
| JET | Critical path terminals are down<br><br>Other terminals are down | Significant<br><br>Minimal | Relay of mission-essential weather information is delayed<br><br>Weather data is not relayed to customers, backup procedures used | Air Force Weather Agency/Base Network Control Center |
| LAN (Base Local Area Network) | Any Outage | Significant | The 7 OSS/OSW relies heavily on the base LAN for obtaining weather products. LAN outages severely degrade the weather support capabilities of the flight. | 7 BW Communications Squadron Help Desk at DSN 461-4433 |
| Telephone Lines | Any Outage | Significant | The 7 OSS/OSW relies heavily on transmitting forecast products via telephone lines. | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| PMSV | Any outage | Significant | Unable to support airborne aircraft directly. Currently Dyess does not have any backup capability. | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Temp/RH Sensor | Kestrel 4000 inoperative<br><br>Kestrel 4000 operative | Significant<br><br>Minimal | Information obtained from this equipment is essential for flight safety<br><br>Temperature observations require equipment to adjust to outside air temperatures | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 | Any Outage | Significant | Information from this sensor provides | 7th Communications Squadron Maintenance |

| | | | | |
|---|---|---|---|---|
| (AMOS)<br>Runway Visual Range / Visibility Sensor | | | visibility and runway visual range during poor visibility periods. There is no backup at this time. | Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Ceilometer / Cloud Height Sensor | Any Outage | Minimal | Information from this sensor provides the heights of cloud layers and ceilings. This assists the observer in providing information to aircrew. | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Wind Sensor | Kestrel 4000 inoperative<br><br>Kestrel 4000 operative | Significant<br><br>Minimal | Information obtained from this sensor is essential for flight safety<br>Wind observations not truly representative of what is occurring on the airfield | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Pressure Sensors | Kestrel inoperative<br><br>Kestrel operational | Significant<br><br>Minimal | Information obtained from this sensor is essential for safe flight operations<br><br>Pressure observations require additional time reducing efficient operations | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Precip ID Sensor | Any Outage | Minimal | Weather observations will require manual backup/supplementation when precip observed | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS) Freezing Precip Sensor | Any Outage | Minimal | Weather observations will require manual backup/ supplementation when freezing precip observed. | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |

| | | | | |
|---|---|---|---|---|
| FMQ-19 (AMOS)<br>Lightning Sensor | Internet connectivity<br><br>No internet connectivity | Minimal<br><br>Significant | Information obtained from internet sources.<br><br>Severely degrades 7 OSS/OSWs ability to detect and track lightning strikes | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| FMQ-19 (AMOS)<br>Rain Gauge | Any Outage | Minimal | Weather observations will require manual backup/ supplementation for precip accumulation | 7th Communications Squadron Maintenance Operations Center (6-3324/3325) |
| Kestrel | FMQ-19 inoperative<br><br>FMQ-19 operational | Significant<br><br>Minimal | Information obtained from this equipment is essential for flight safety<br><br>Pressure observations are made with ML-658 DBASI | 7 OSS/OSW |
| Nexrad<br>RDA/(OPUP) | Products are unavailable or seriously degraded | Significant | Weather Warning support is severely degraded. Personnel have to rely on internet products that are not as timely and detailed. | RDA: 7th Communications Squadron Maintenance Operations Center (6-3324/3325)<br>OPUP: 7 OSS/OSW |

## Attachment 3

## CURRENT DYESS DAILY MWP EXAMPLE

### TABLE A3.1. Dyess Weather/Diverts

| DYESS AFB WEATHER FLIGHT (X-2524) | | | | | | | | | | | | 9th BS MISSION WEATHER PRODUCT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FLIMSY: | 28-02 | ALL TIMES ARE IN ZULU, ALL ELEVATIONS ARE IN MSL UNLESS OTHERWISE NOTED | | | | | | | FORECASTER: | MSGT HAYES | | |
| DATE: | 28-Nov-2012 | AMD FOR: | | | | | | | | | AMD @: | |

DYESS AIRFIELD WEATHER

** This product is not a valid brief unless a brief time and intials are obtained from the duty forecaster @ 696-2524/4164 prior to stepping to the aircraft. **

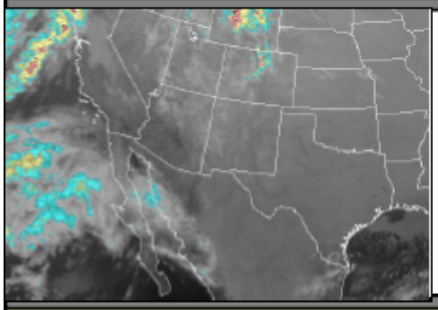
| VALID TIME | VIS | WEATHER | WINDS | X-WIND | MIN ALSTG | PA | TEMP | | DEWPOINT | | RH | MIN CIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 to 21 Z | 7 | NSW | 180 10 G 15 | 5 | 3023 | 1495 | 20 C | 68 F | 03 C | 38 F | 33 % | NONE AGL |
| SKY (AGL): | CLR | | | REMARKS: | NONE | | | | | | | |

| VALID TIME | VIS | WEATHER | WINDS | X-WIND | MIN ALSTG | PA | TEMP | | DEWPOINT | | RH | MIN CIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 to 00 Z | 7 | NSW | 180 12 G | 4 | 3021 | 1514 | 19 C | 66 F | 03 C | 37 F | 34 % | NONE AGL |
| SKY (AGL): | CLR | | | REMARKS: | NONE | | | | | | | |

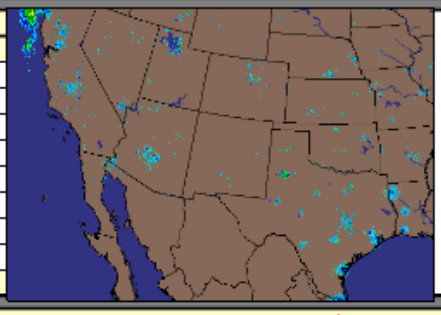
| VALID TIME | VIS | WEATHER | WINDS | X-WIND | MIN ALSTG | PA | TEMP | | DEWPOINT | | RH | MIN CIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 to 03 Z | 7 | NSW | 150 8 G | 1 | 3022 | 1504 | 14 C | 57 F | 03 C | 37 F | 47 % | NONE AGL |
| SKY (AGL): | FEW200 | | | REMARKS: | NONE | | | | | | | |

| VALID TIME | VIS | WEATHER | WINDS | X-WIND | MIN ALSTG | PA | TEMP | | DEWPOINT | | RH | MIN CIG |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03 to 06 Z | 7 | NSW | 150 8 G | 1 | 3020 | 1523 | 10 C | 50 F | 03 C | 38 F | 63 % | NONE AGL |
| SKY (AGL): | FEW200 | | | REMARKS: | NONE | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BMNT: 0624 L | MOONRISE: 1751 L | TEMP DEV | 7 | SPACE WEATHER | | LEGEND | |
| SUNRISE: 0721 L | MOONSET: 0720 L | CONTRAILS | 359-672 | No Impact | UHF / SATCOM | NO SIGNAL LOSS | |
| SUNSET: 1734 L | ILLUM: 100% | -30 C | 255 | No Impact | HF | OCCASIONAL SIGNAL LOSS | |
| EENT: 1831 L | MAX 71 MIN 45 °F | FZ LVL | 110 | No Impact | GPS | FREQUENT SIGNAL LOSS | |



| CLIMB WINDS | |
|---|---|
| Flight LVL | WIND (KT) |
| 010 (AGL) | 18011 |
| 020 (AGL) | 19016 |
| 030 (AGL) | 20018 |
| 040 (AGL) | 21018 |
| 050 (AGL) | 21018 |
| 050-100 | 21016 |
| 100-150 | 20016 |
| 150-200 | 20015 |
| FL 050 thru 200 in MSL | |



Dyess AFB Watches, Warnings, Advisories, and Local Hazards (Contact Dyess WX for most current WWA Info)

| | | | |
|---|---|---|---|
| 1) | NONE | 5) | |
| 2) | | 6) | |
| 3) | | 7) | |
| 4) | | 8) | |

| Diverts Valid: 1800 to 0600 Z | Divert Weather Forecasts | All Divert FCSTS |
|---|---|---|

| | | | | |
|---|---|---|---|---|
| Abilene | Amarillo | Midland | Barksdale | San Angelo |
| Kelly | Ft Worth | Tinker | Little Rock | Sheppard |
| Cannon | Ellsworth | Nellis | McConnell | Edwards |

GOOD / MARGINAL / POOR

DIVERT WEATHER FORECASTS

GOOD ====== CIGS/VIS > 1,500FT / 3SM, NEG HAZARDS, X-WNDS <26KTS

MARGINAL == CIGS/VIS > 200FT / 1/2SM < 1,500FT/3SM, LGT ICG, MDT TURB(CAT 2), VICINITY TS (VCTS)

POOR ====== CIGS/VIS < 200FT / 1/2 SM, SVR+ TURB(CAT 2), MDT/SVR ICG, T-STORMS, X-WNDS > 25KTS

## TABLE A3.2. Route Weather

**SECTION 7**

**9 BS FORECAST**

| AR: | LANCER | VALID TIME: | 1815 | 1845 |
|---|---|---|---|---|
| SKY | SKC 7 NSW | | | |
| HAZARDS: | NEG HAZARDS | | | |
| FL: | 180 | WND (KT)/TEMP (°C): | 22016/-09C | |
| RANGE | W-147D | VALID TIME: | 1900 | 2030 |
| SKY | SCT020/035 IC:2 OC:5 | | | |
| HAZARDS: | NEG HAZARDS | | | |
| E 000 | | | | |
| MTN U | WAVE HEIGHT: 3FT / SST: 73F | | | |

| 000 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | 11015 | 10010 | 07005 | 29020 | 28030 | 30.35 | |
| | 412 | 560 | 835 | 1014 | 1152 | AGL | MSL |
| | 16 | 164 | 439 | 618 | 756 | UKN | X |

| RANGE | LANCR/SNY | VALID TIME: | 1815 | 1930 |
|---|---|---|---|---|
| SKY | SKC 7 NSW | | | |
| HAZARDS: | NEG HAZARDS | | | |
| E 023 | | | | |
| MTN N | | | | |

| 028 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | 23021 | 22015 | 21015 | 25015 | 26015 | 30.41 | |
| | 384 | 521 | 785 | 945 | 1056 | AGL | MSL |
| | -67 | 70 | 334 | 494 | 605 | NONE | X |

| RANGE | LANCR/SNY | VALID TIME: | 0145 | 0330 |
|---|---|---|---|---|
| SKY | FEW200/250 IC:5 OC:7 | | | |
| HAZARDS: | NEG HAZARDS | | | |
| E 023 | | | | |
| MTN N | | | | |

| 028 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | 21020 | 22017 | 20018 | 24018 | 26025 | 30.25 | |
| | 397 | 543 | 811 | 983 | 1092 | AGL | MSL |
| | 93 | 239 | 507 | 679 | 788 | NONE | X |

THE OLDEST BS STILL ACTIVE IN THE AIR FORCE

| AR: | LANCER | VALID TIME: | 0145 | 0245 |
|---|---|---|---|---|
| SKY | FEW200/250 IC:5 OC:7 | | | |
| HAZARDS: | NEG HAZARDS | | | |
| FL: | 210 | WND (KT)/TEMP (°C): | 22018/-22C | |
| RANGE | | VALID TIME: | | |
| SKY | | | | |
| HAZARDS: | | | | |
| E 000 | | | | |
| MTN U | | | | |

| 000 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | | | | | | | |
| | | | | | | AGL | MSL |
| | | | | | | UKN | X |

| RANGE | | VALID TIME: | | |
|---|---|---|---|---|
| SKY | | | | |
| HAZARDS: | | | | |
| E 000 | | | | |
| MTN U | | | | |

| 000 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | | | | | | | |
| | | | | | | AGL | MSL |
| | | | | | | UKN | X |

| RANGE | | VALID TIME: | | |
|---|---|---|---|---|
| SKY | | | | |
| HAZARDS: | | | | |
| E 000 | | | | |
| MTN U | | | | |

| 000 | 050 | 100 | 180 | 240 | 300 | MAX ALSTG | |
|---|---|---|---|---|---|---|---|
| SCT DECK | | | | | | | |
| | | | | | | AGL | MSL |
| | | | | | | UKN | X |

**IR ROUTE FORECAST**

| ROUTE | IR 178 | VALID TIME | 2015 | 2045 |
|---|---|---|---|---|

| POINTS | VIS | Wx | SFC WNDS | Lowest CLDS | MIN CIG |
|---|---|---|---|---|---|
| A to M | 7 | NSW | 18020 | 210 | NONE |
| to | | | | | |
| to | | | | | |
| to | | | | | |
| HAZARDS | NEG HAZARDS | | | | |
| PIREPS | NO SIG PIREPS | | | | |

| CONTRAILS: | 364-656 | FZ LVL (MSL): | 115 |
|---|---|---|---|

| AP/1B OR WP | C | M | W | AS | BG | |
|---|---|---|---|---|---|---|
| IFR FL (MSL) | 15000 | 7200 | 7000 | 7000 | 7000 | |
| SFC ELEVATION | 4500 | 3200 | 3600 | 2600 | 4000 | |
| FL WINDS | 30021 | 26012 | X | X | X | |
| FL TEMP | -4 | 11 | X | X | X | |
| MAX ALSTG | 30.32 | 30.30 | X | X | X | |
| D-VALUE | 600 | 330 | | | | |
| ALT. VARIATION | 232 | -20 | | | | |

| ROUTE | IR 178 | VALID TIME | 0100 | 0130 |
|---|---|---|---|---|

| POINTS | VIS | Wx | SFC WNDS | Lowest CLDS | MIN CIG |
|---|---|---|---|---|---|
| A to M | 7 | NSW | 18012 | 080 | NONE |
| to | | | | | |
| to | | | | | |
| to | | | | | |
| HAZARDS | NEG HAZARDS | | | | |
| PIREPS | NO SIG PIREPS | | | | |

| CONTRAILS: | 369-593 | FZ LVL (MSL): | 110 |
|---|---|---|---|

| AP/1B OR WP | C | M | W | AS | BG | |
|---|---|---|---|---|---|---|
| IFR FL (MSL) | 15000 | 7200 | 7000 | 7000 | 7000 | |
| SFC ELEVATION | 4500 | 3200 | 3600 | 2600 | 4000 | |
| FL WINDS | 30021 | 26012 | X | X | X | |
| FL TEMP | -4 | 11 | X | X | X | |
| MAX ALSTG | 30.30 | 30.28 | X | X | X | |
| D-VALUE | 600 | 330 | | | | |
| ALT. VARIATION | 250 | -1 | | | | |

## Attachment 4

## AIRCRAFT WEATHER SENSITIVITIES AND THRESHOLDS

### TABLE A4.1. 7 BW /317 AG Aircraft Weather Sensitivities/MISSIONWATCH Thresholds B-1B

| Mission Profile | Flight Level | Weather Parameter | Threshold / Impact To Mission |
|---|---|---|---|
| Take-off / Landing | | | |
| | | Lightning | Warning within 5NM cancels all departures or recoveries at Dyess. |
| | | Crosswinds | > 26 Kts, B-1B units takeoffs & landings require OG/CC approval.<br>> 20 Kts, no B-1B Touch & Goes. |
| | | B-1 Induction | Surface Temperatures less than 47F with visible moisture present (i.e. fog, mist, precipitation, standing water, slush) or the relative humidity is greater than 50%, B-1B engines potentially impacted by inductive icing. |
| | | Ceiling/Visibility | < 200/0.5 B-1B Minimum Departures. |
| | | Ceiling/Visibility | ≤ 1500/3, the B-1B is not able to file VFR. |
| | | Ceiling/Visibility | ≤ 3000/3 Aircrew need to file for an alternate airfield. |
| | | RVR (Takeoff) | ≥ 1000 < 1600, only B1-B mission directed by higher HHQ and approved by OG/CC. |
| | | RVR (Takeoff) | 1600 B-1B Aircrew need to designate an alternate. |
| | | RVR (Recovery) | ≤ 2400 B-1B minimum to fly and approach. |
| Alternate Requirements | | | |
| | | Ceiling/Visibility | < 600/2 B-1B Alternate requirement for an airfield with an operational published precision approach procedure. |
| | | Ceiling/Visibility | < 800/2 B-1B Alternate requirement for an airfield with a non-precision approach. |
| Route Weather Limiters | | | |
| | | Turbulence | Moderate or Greater (Remember the B-1B is a CAT IV aircraft.) In addition, the B-1B avoid moderate or greater Mountain Wave Turbulence. |
| | | Icing | Moderate or Greater (B-1B aircraft cannot cruise in Light or Greater Icing). |
| | | Thunderstorms | B-1B crews avoid thunderstorms by 10 NM below FL 230, and 20 NM above FL 230. |
| | | VFR Cloud Clearances & Visibility Minimums Below FL 10K | 500 ft. below,<br>1,000 ft. above, and<br>2,000 ft. horizontal.<br>3 Miles Visibility. |
| | | Surface Winds | > 35 Kts, B-1B crews not able to enter or continue Low-Level Training, or conduct normal flying operations without OG/CC approval, and only one approach to a full |

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| | | | stop.<br>> 35 Kts, B-1B departures require OG/CC approval.<br>> 25 Kts, over water, B-1B crews not able to conduct normal flying operations without OG/CC approval. |
| | | Sea State | > 10 foot wave height, B-1B crews not able to conduct normal flying operations without OG/CC approval. |
| | | Altitude Variations | < - 400 in IR Conditions. |
| | | Volcanic Ash | B-1B aircrews avoid volcanic ash clouds. This may cause engines to shut down completely on the aircraft. |
| | | Space Weather | Both UHF and GPS degradation has an effect on B-1 operations, especially for missions over water. |
| | | Surface Temperature | <15° F (-9° C), B1-B aircrews required to carry special equipment and clothing items. |
| | | Sea Surface Temperature | ≤ 60° F (15.5° C), B1-B aircrews required to wear anti-exposure suit. |
| Air Refueling | | | |
| B-1B Only | | Turbulence | Moderate or Greater. In addition, the B-1B aircraft avoid moderate or greater Mountain Wave Turbulence. |
| B-1B Only | | Icing | Moderate or Greater. |
| B-1B Only | | Visibility | < 0.5 Mile. |
| Medium / High Altitude B-1B Day and Night Visual Operations | ≥ 5,000 FT | Ceiling/Visibility | Clear Skies/2. |
| Low Altitude B-1B Day Visual Operations | < 5,000 FT | Ceiling/Visibility | 1500/5. |

**TABLE A4.2. BW /317 AG Aircraft Weather Sensitivities/MISSIONWATCH Thresholds C-130J**

| Mission Profile | Flight Level | Weather Parameter | Threshold / Impact To Mission |
|---|---|---|---|
| Departures / Recoveries | | | |
| | | Lightning | Warning within 5 NM cancel all departures or recoveries at Dyess. |
| | | Crosswinds | ≥ 35 Kts, C-130 aircrews not able to depart due to crosswinds |
| | | Ceiling/Visibility | ≤ 1500/3, C-130 aircrews not able to file VFR |
| | | Ceiling/Visibility | ≤ 2000/3 Aircrews need to designate an alternate airfield |
| | | RVR (Takeoff) | ≤ 1600 ft C-130 aircrews cannot depart (200 ft/1SM for formation) |
| Departure Alternate Requirements | | | |
| | | Ceiling/Visibility | < 600/2 Alternate requirement for an airfield with an operational published precision approach procedure |
| | | Ceiling/Visibility | < 800/2 Alternate requirement for an airfield with a non-precision approach |
| Route Weather Limiters | | | |
| | | Turbulence | Severe (Remember C-130 is a CAT II Aircraft.) C-130 aircraft avoid moderate or greater Mountain Wave Turbulence |
| | | Icing | Moderate (avoided) Severe (flight prohibited) |
| | | Thunderstorms | C-130 maintains a 2,000 ft vertical separation above Cumulonimbus Clouds (Thunderstorms). C-130 aircrews avoid thunderstorms by 10 NM below FL 230, and 20 NM above FL 230, 5 NMs for tactical low-level operations below FL230 provided the outside air temperature is at or above 0 degrees Celsius at flight altitude. C-130's avoid gust fronts and winds |

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| | | | preceding a rapidly moving thunderstorm. C-130 maintains a 2,000 feet vertical separation from Cumulonimbus Clouds (Thunderstorms). |
| | | Heavy Rain Showers | C-130 aircrews need to maintain a 5 NM separation from Heavy Rain Showers. |
| | | Lightning Potential | C-130 aircrews avoid areas of high lightning potential, i.e., clouds within plus or minus 5,000 feet or plus/minus 8° C of the freezing level. |
| | | VFR Cloud Clearances & Visibility Minimums Below FL 10K | 500 ft. below,<br>1,000 ft. above, and<br>2,000 ft. horizontal<br>3 Miles Visibility<br>(Clear of Clouds/3 Miles Visibility in Class B airspace) |
| | | VFR Cloud Clearances & Visibility Minimums Above FL 10K | 1,000 ft. below,<br>1,000 ft. above, and<br>1 SM horizontal<br>5 Miles Visibility |
| | | Ceiling/Visibility | ≥ 1700/3 (AGL) Minimum Requirements for Rectangular Pattern at Dyess Airfield (Main & 16B/34B)<br>≥ 1500/3 (AGL) for 16A/34A |
| | | Ceiling/Visibility | ≥ 2200/3 (AGL) Minimum Requirements for Overhead Pattern at Dyess |
| Marion Drop Zone | | Ceiling/Visibility | ≥ 1700/3 Minimum Requirements for Drop Zone Operations |
| SKE Formation Routes | | Ceiling/Visibility | ≤ 2500/5 Minimum Requirements for C-130 SKE Formation Orbit Areas |
| | | Volcanic Ash | C-130 aircrews avoid volcanic ash clouds. This may cause engines to shut down completely on the aircraft. |
| | | Space Weather | C-130 missions are impacted primarily by UHF SATCOM degradation. In |

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| | | | addition, GPS errors are important when related to airdrop operations for crews. |
| Personnel Airdrops | | Winds | $\geq$ 14 Kts |
| Equipment Airdrops | | Winds | $\geq$ 18 Kts |
| Training Bundle Airdrops | | Winds | $\geq$ 26 Kts |
| NVG Operations | | Ceiling/Visibility | Any cloud coverage impacts operations |

## Attachment 5

## WEATHER NOTIFICATION RESPOSE

### TABLE A5.1. CUSTOMER RESPONSE MATRIX

| **Weather Criteria** | | | |
|---|---|---|---|
| **Watch, Lightning within 5 NM** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>CE Sq<br>All other units | Increase situational awareness on lightning potential.<br>Suspend or delay outside maintenance activity that will take more than 1-hour to complete.<br>Asses remaining fuel in airborne aircraft and determine alternate airfield options.<br>Designate alternate airfield for returning aircraft if necessary.<br>Make preparations to evacuate the flight line if needed. | Lost maintenance time. |
| **Warning, Lightning within 5 NM** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Suspend all flight operations.<br>Restrict crews to inside buildings or aircraft on ramp.<br>Power down all non-essential computer systems.<br>Asses remaining fuel in airborne aircraft and determine alternate airfield options.<br>Designate alternate airfield for returning aircraft<br>Cease all outdoor activities; seek shelter.<br>Cease aircraft refueling.<br>Restrict outdoor patrols and limit activities to insides buildings and vehicles.<br>Close golf course and recall golfers.<br>Close base pools and evacuate swimmers to inside buildings. | Lost training.<br>Delayed launch and recovery of aircraft.<br>Increased fuel usage.<br>Increase workload.<br>Lost maintenance time.<br>Installation security decreased.<br>Heavy reliance on remote sensors.<br>Remote sensors compromised with electric discharges.<br>Lost MWR funds. |
| **Warning, Tornado** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying | Activate base tornado siren.<br>If time permits, secure equipment as required.<br>Emergency shutdown of all aircraft on the ramp and immediate EGES to shelter. | Increased workload.<br>Lost training.<br>Delayed launch and recovery of aircraft. |

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| | Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Initiate Battlestaff and EOC recall<br>Suspend all activity and take shelter.<br>Divert airborne aircraft as needed<br>Account for all personnel | Lost training.<br>Loss of SA on flying operations.<br>Lost maintenance time.<br>Installation security decreased.<br>Heavy reliance on remote sensors.<br>Lost MWR funds.<br>Total work stoppage and lost productivity. |
| **Warning, Freezing Precipitation** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All units | Determine need for non-essential personnel late reporting to work centers and/or early release.<br>Deice aircraft prior to take-off.<br>Suspend all flying activity during observed freezing precipitation.<br>Determine take-off and landing alternates.<br>Stop open egress hatch maintenance on the flightline.<br>Monitor engine performance runs in test cell.<br>Ensure equipment around facilities is secure.<br>Brief all drivers on hazards<br>Increase barrier arresting kits checks.<br>Recall power pro technicians.<br>Recall road crew to deploy sand spreaders at all intersection and the ECPs.<br>Account for all personnel. | Potential total work stoppage and lost productivity.<br>Lost training.<br>Delayed launch and recovery of aircraft.<br>Increased workload.<br>Delayed maintenance.<br>Delayed security response times.<br>Lost MWR funds.<br>Increased commute times |
| **Warning, Heavy Rain ≥ to 2 inches in 12 hours** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Determine need for non-essential personnel late reporting to work centers and/or early release.<br>Activate EOC and unit control centers as required.<br>Determine the need for shelters and activate as necessary.<br>Determine take-off and landing alternates. | Potential total work stoppage and lost productivity.<br>Delayed launch and recovery of aircraft.<br>Increased workload<br>Delayed security response times.<br>Increase workload |

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| | | Secure equipment as required.<br>Take steps to reduce damage to facilities and equipment.<br>Prepare to provide safeguarding/security of essential resources and personal property and assist in any evacuation process.<br>Recall SF augmentees if needed.<br>Brief all drivers on hazards<br>Prepare to provide emergency housing as needed.<br>Coordinate with Base Exchange for opening during pre-disaster and recovery phases to support the base populace.<br>Monitor flood prone areas.<br>Close off streets as needed.<br>Prepare to protect utilities by an orderly phase-down of non-essential facilities.<br>Cancel or delay all non-essential MWF functions.<br>Implement Contingency Response Plan as necessary.<br>Account for all personnel. | Lost MWR funds.<br>Delayed or suspended routine maintenance activities.<br>Increased commute times |
| **Warning, Heavy Snow ≥ to 2 inches in 12 hours** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Determine need for non-essential personnel late reporting to work centers and/or early release.<br>Deice aircraft prior to take-off.<br>Determine take-off and landing alternates.<br>Stop open egress hatch maintenance on the flightline.<br>Monitor engine performance runs in test cell.<br>Ensure equipment around facilities is secure.<br>Brief all drivers on hazards<br>Suspend or delay outside activities.<br>Increase barrier arresting kits checks.<br>Recall power pro technicians.<br>Recall road crew to deploy sand spreaders at all intersection and the ECPs.<br>Activate snow removal plan. | Potential total work stoppage and lost productivity.<br>Lost training.<br>Delayed launch and recovery of aircraft.<br>Increased workload.<br>Delayed security response times.<br>Lost MWR funds.<br>Delayed or suspended routine maintenance activities.<br>Increased commute times. |

| | | | |
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| | | Account for all personnel | |
| **Warning, High Winds ≥ 35kts but <50kts** | **Agency** | **Action** | **Mission Impact** |
| | 7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>All other units | Restrict low level flight operations.<br>Monitor for potential crosswind component. If greater than 26kts restrict take-off and landing.<br>Restrict personnel and equipment drops.<br>Determine take-off and landing alternates.<br>Complete all steps for winds 25-34kts.<br>Lower aircraft fire bottles to two pintles.<br>At 40kts cease aircraft launcher, module, and single bomb/missile loading/unloading.<br>Close aircraft MLG doors.<br>Remove all non powered AGE from the flightline.<br>Down jack all hangered aircraft.<br>Remove -21 trailers from flightline.<br>Raise all aircraft flaps and slats.<br>Hangar aircraft is possible.<br>Take steps to reduce damage to facilities and equipment.<br>Ensure equipment around facilities is secure. | Loss of training.<br>Loss of training.<br>Delayed launch and recovery of aircraft.<br>Delayed or cancelled maintenance actions.<br>Increased workload. |
| **Warning, Hail ≥ 1/2 inch to < 3/4 inch diameter** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Activate EOC and unit control centers as required.<br>Suspend all activity and seek shelter.<br>Divert airborne aircraft as needed.<br>Suspend take-off, landing, and taxing of aircraft.<br>Asses remaining fuel in airborne aircraft and determine alternate airfield options.<br>Designate alternate airfield for returning aircraft.<br>Hanger as many aircraft as possible.<br>Suspend all flightline maintenance actions.<br>Shut down any engine running in the test cell.<br>Clear flightline of equipment and loose | Increased workload.<br>Lost training.<br>Delayed launch and recovery of aircraft.<br>Increase workload<br>Suspended or delayed maintenance actions.<br>Installation security decreased.<br>Heavy reliance on remote sensors.<br>Lost MWR funds. |

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| | | articles.<br>Suspend any refueling activities at test cell.<br>Prepare avionics test stations to be put in standby mode.<br>Restrict outdoor patrols and limit activities to insides buildings and vehicles.<br>Suspend or delay outside activities.<br>Take steps to reduce damage to facilities and equipment. | |
| **Warning, Hail ≥ 3/4 inch diameter** | **Agency** | **Action** | **Mission Impact** |
| | 7 BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Activate EOC and unit control centers as required.<br>Consider evacuation of assigned and transient aircraft.<br>Direct base organization to only conduct mission essential operations.<br>Suspend all activity and seek shelter.<br>Divert airborne aircraft as needed.<br>Suspend take-off, landing, and taxing of aircraft.<br>Asses remaining fuel in airborne aircraft and determine alternate airfield options.<br>Designate alternate airfield for returning aircraft.<br>Hanger as many aircraft as possible.<br>Consider protecting aircraft canopies/engine intakes.<br>Suspend all flightline maintenance actions.<br>Shut down any engine running in the test cell.<br>Clear flightline of equipment and loose articles.<br>Suspend any refueling activities at test cell.<br>Prepare avionics test stations to be put in standby mode.<br>Restrict outdoor patrols and limit activities to insides buildings and vehicles.<br>If time permits, secure equipment as required.<br>Take steps to reduce damage to facilities and equipment. | Increased workload.<br>Potential total work stoppage and lost productivity.<br>Lost training.<br>Delayed launch and recovery of aircraft.<br>Suspended or delayed maintenance actions.<br>Installation security decreased.<br>Heavy reliance on remote sensors.<br>Lost MWR funds. |

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| | | Ensure equipment around facilities is secure.<br>Account for all personnel. | |
| **Warning, Damaging Winds ≥ 50kts** | **Agency** | **Action** | **Mission Impact** |
| | 7BW / Command post<br>7 OG (B-1s)<br>317 AG (C-130s)<br>Supervisor of Flying<br>Maintenance<br>Security Forces Sq<br>Force Support Sq<br>CE Sq<br>All other units | Activate EOC and unit control centers as required.<br>Consider evacuation of assigned and transient aircraft.<br>Direct only mission essential operations.<br>Suspend all activity and seek shelter.<br>Divert airborne aircraft as needed.<br>Suspend take-off, landing, and taxing of aircraft.<br>Asses remaining fuel in airborne aircraft and determine alternate airfield options.<br>Designate alternate airfield for returning aircraft.<br>Hanger as many aircraft as possible.<br>Suspend all flightline maintenance actions.<br>Complete all steps for winds 25-34kts.<br>Lower aircraft fire bottles to two pintles.<br>Close aircraft MLG doors.<br>Remove all non powered AGE from the flightline.<br>Down jack all hangered aircraft.<br>Remove -21 trailers from flightline.<br>Raise all aircraft flaps and slats.<br>Restrict outdoor patrols and limit activities to insides buildings and vehicles.<br>Limit access to flightline.<br>Ensure required stocks of MREs are available for each UCC if required.<br>If time permits, secure equipment as required.<br>Verify potable water supplies are available and protected.<br>Fill all water tanks to capacity.<br>Take steps to reduce damage to facilities and equipment. | Increased workload.<br>Potential total work stoppage and lost productivity.<br>Lost training.<br>Delayed launch and recovery of aircraft.<br>Suspended or delayed maintenance actions.<br>Installation security decreased.<br>Heavy reliance on remote sensors.<br>Lost MWR funds. |

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| | | Ensure equipment around facilities is secure.<br>Account for all personnel. | |